Department of Labor-Federal Security Agency Appropriations for 1953

HEARINGS

BEFORE THE

SUBCOMMITTEE OF THE COMMITTEE ON APPROPRIATIONS HOUSE OF REPRESENTATIVES

EIGHTY-SECOND CONGRESS

SECOND SESSION

SUBCOMMITTEE

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NATIONAL LABOR RELATIONS BOARD
NATIONAL MEDIATION BOARD
NATIONAL RAILROAD ADJUSTMENT BOARD
RAILROAD RETIREMENT BOARD
FEDERAL MEDIATION AND CONCILIATION SERVICE
OFFICE OF EDUCATION (SCHOOL CONSTRUCTION)
TESTIMONY OF MEMBERS OF CONGRESS
INTERESTED ORGANIZATIONS
AND INDIVIDUALS

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DEPARTMENT OF LABOR-FEDERAL SECURITY AGENCY APPROPRIATIONS FOR 1953

TUESDAY, JANUARY 15, 1952.

NATIONAL MEDIATION BOARD

WITNESSES

LEVERETT EDWARDS, CHAIRMAN
FRANCIS A. O'NEILL, JR., MEMBER
JOHN THAD SCOTT, JR., MEMBER
E. C. THOMPSON, SECRETARY
M. D. LEWIS, ASSISTANT SECRETARY

SALARIES AND EXPENSES

Amounts available for obligation

	1951 actual	1952 estimate	1953 estimate
Appropriation or estimate	$409,200	$378,494	$422,000
Proposed supplemental due to pay increases		22,000	
Total available for obligation	409,200	400,494	422,000
Unobligated balance, estimated savings	−8,441		
Obligations incurred	400,759	400,494	422,000

Obligations by activities

Description	1951 actual	1952 estimate	1953 estimate
1. Mediation of labor-management disputes and determination of collective bargaining representatives in transportation industry	$372,659	$372,439	$392,420
2. Administration	28,100	28,055	29,580
Obligations incurred	400,759	400,494	422,000

Obligations by objects

Object classification	1951 actual	1952 estimate	1953 estimate
Total number of permanent positions	43	41	43
Average number of all employees	43	39	43
Average salaries and grades:			
General schedule grades:			
Average salary	$6,317	$6,698	$6,465
Average grade	GS-10.5	GS-10.3	GS-10.1
01 Personal services:			
Permanent positions	$295,531	$306,246	$323,025
Regular pay in excess of 52-week base		854	925
Total personal services	295,531	307,100	323,950
02 Travel	80,114	76,544	80,750
03 Transportation of things	50	50	50
04 Communication services	10,785	10,000	10,000
06 Printing and reproduction	4,300	4,300	4,300
08 Supplies and materials	3,979	2,500	2,500
09 Equipment	6,000		450
Obligations incurred	400,759	400,494	422,000

Analysis of expenditures

	1951 actual	1952 estimate	1953 estimate
Unliquidated obligations, start of year	$26,336	$30,864	$31,358
Obligations incurred during the year	400,759	400,494	422,000
	427,095	431,358	453,358
Deduct unliquidated obligations, end of year	30,864	31,358	34,358
Total expenditures	396,231	400,000	419,000
Expenditures are distributed as follows:			
Out of current authorizations	372,065	351,000	389,000
Out of prior authorizations	24,166	28,000	29,000
Out of anticipated 1952 supplemental for pay increases		21,000	1,000

Arbitration and Emergency Boards

Amounts available for obligation

	1951 actual	1952 estimate	1953 estimate
Appropriation or estimate	$325,000	$138,000	$138,000
Unobligated balance, estimated savings	−181,602		
Obligations incurred	143,398	138,000	138,000

Obligations by activities

Description	1951 actual	1952 estimate	1953 estimate
1. Voluntary arbitration of controversies between carriers and employees	$21,500	$20,700	$20,700
2. Investigation of disputes threatening interruption of essential transportation service	121,898	117,300	117,300
Obligations incurred	143,398	138,000	138,000

Obligations by objects

Object classification	1951 actual	1952 estimate	1953 estimate
Full-time equivalent of all positions	6	6	6
Average number of all employees	6	6	6
01 Personal services: Part-time and temporary positions	$113,150	$114,000	$114,000
02 Travel	18,941	15,000	15,000
05 Rents and utility services	6,945	5,000	5,000
06 Printing and reproduction	4,362	4,000	4,000
Obligations incurred	143,398	138,000	138,000

Analysis of expenditures

	1951 actual	1952 estimate	1953 estimate
Unliquidated obligations, start of year	$26,878	$17,835	$15,835
Obligations incurred during the year	143,398	138,000	138,000
Total	170,276	155,835	153,835
Deduct unliquidated obligations, end of year	17,835	15,835	15,835
Total expenditures	152,441	140,000	138,000
Expenditures are distributed as follows:			
Out of current authorizations	138,677	130,000	130,000
Out of prior authorizations	13,764	10,000	8,000

Mr. DENTON. The first witnesses before the committee this morning are from the National Mediation Board. Mr. Edwards, would you like to make a statement?

GENERAL STATEMENT

Mr. EDWARDS. I might state for the record that my name is Leverett Edwards, Chairman of the National Mediation Board, accompanied by Mr. Scott, member of the Board, Mr. O'Neill, the other member of the Board. We have present also Mr. Thompson, our Secretary, and Mr. Lewis, our Assistant Secretary.

We have, I might state, a complete written statement here which will set forth all of the information we believe to be pertinent.

Mr. DENTON. I wonder if you would just summarize your functions and work and the problems that your Board has.

Mr. EDWARDS. Yes, sir. I will just hit the high lights, and you have the detail in this statement.

Mr. DENTON. Yes.

SUMMARY OF BOARDS FUNCTIONS

Mr. EDWARDS. It is the duty of this Board to administer the Railway Labor Act, and our work consists of the promotion of labor-management peace among approximately 700 railroad carriers and all of the air lines of the country.

There are approximately a million and a half employees involved in these industries.

Now, under the Railway Labor Act, the steps which we may utilize consist of the following:

Following the negotiations by the parties and their conferences directly, we come in when our services are needed and provide mediation services between the parties. In the event those services may not be successful, under the act we administer a further program by which we assist the parties in going ahead with arbitration of their disputes. In those cases in which these previous steps may not have procured a settlement, then under the Railway Labor Act the Emergency Board provisions of the act may be utilized by the President upon our certificate that an emergency exists which is likely to disrupt interstate commerce and deprive important sections of the country of essential transportation.

Now, our over-all staff at full force consists of a total of 43 people, and with this staff we administer the act throughout the country. It is necessary for our mediators to go to the various properties when disputes develop and perform their services there.

We often refer to our jurisdiction in the case of labor disputes on the railroads or airlines as being somewhat similar to that of the fire department. Whenever there is a labor fire, we go in and try to put it out.

Now, briefly summarizing, I may say with specific reference to the figures which you have before you here that we are asking for the same amount of money as we have previously had. However, I wish to call your attention to one exception to that. We are asking that our staff of mediators be brought to its regular size—that is,

the size which we have previously had—which would mean the addition of four mediators to take the place of three which we have lost by——

REQUEST FOR ADDITIONAL MEDIATORS

Mr. DENTON. How many do you have now?

Mr. EDWARDS. We now have 18.

Mr. DENTON. And you want 22?

Mr. EDWARDS. Well, our usual complement is 23.

Mr. THOMPSON. Pardon me, Mr. Edwards. We have at the present time 22, and the request for 1953 contemplates 25 men in the field, which will bring the field force to its normal complement which we have had in the past.

EXPLANATION OF INCREASE

Mr. DENTON. Is that where this increase of $43,506 comes in?

Mr. EDWARDS. Mr. Thompson, our Secretary, can give you the exact figures on that.

Mr. THOMPSON. The increase in the 1953 request over 1952 amounts to $21,506.

Mr. DENTON. Than, that leaves $22,000. What does this represent?

Mr. LEWIS. That is the pay increase.

Mr. THOMPSON. $16,000 of that $21,000 figure represents the increase in personal-services expense, which would be the cost of bringing our field force up to its normal level of 25 by the addition of three more men. $4,196 of the increase would represent the additional travel expense for them.

Mr. DENTON. Have you had many difficulties this year?

Mr. THOMPSON. Yes. Yes, I would say that the Board has had a very difficult year in many ways.

Mr. DENTON. Have you been able to do your work with the present staff?

Mr. THOMPSON. We have not. Our workload has fallen behind. At the present time, as of this date, we have 156 cases, open cases, on our docket, which is compared with 129 as of January 1 last year. In other words, we have fallen behind 27 cases, mainly due to the fact that our field force has been reduced. The prospects for field work are on the upgrade at the present time. It looks very much like we are going to have all our men can do—and the additional men, too—if we are able to get them—in order to keep our work current.

Mr. DENTON. Have your employees increased since 1944?

Mr. THOMPSON. No, sir. Since 1944?

Mr. DENTON. Yes.

Mr. THOMPSON. I would have to refer that to Mr. Lewis.

Mr. O'NEILL. By two men; that is all. We had two in 1949. In 1949 I believe we asked the Budget and the Congress to provide two trainee mediators. Those are the only two jobs that have been added to the staff since 1945.

Mr. DENTON. I noticed in 1944 your appropriation was $187,000.

Mr. LEWIS. Of course, we have had several pay increases since 1944.

Mr. DENTON. And last year it was $378,000 plus. This year you ask for $410,000. What accounts for those increases?

Mr. LEWIS. Principally pay increases and increased travel costs. Two years or so ago, Congress increased the travel costs by an additional per diem, and the railroad costs have gone up. That is just about all I can think of now.

Mr. DENTON. That is about all the expense you have is personnel and travel——

Mr. LEWIS. Personnel and travel——

Mr. DENTON. And office expense?

Mr. LEWIS. Yes; which is very, very infinitesimal.

Mr. O'NEILL. We only maintain one office, here in Washington. In the field, the men have their offices in hotel rooms.

Mr. THOMPSON. There are only 17 people in the office at the present time, including three members and their secretaries.

Mr. DENTON. Go ahead.

Mr. EDWARDS. One thing that I would like, in brushing over the high lights, to call to your attention is the additional activity we have had in connection with air lines. If you will turn to page 10——

Mr. DENTON. Of the justification?

INCREASED AIRLINE MEDIATION

Mr. EDWARDS. Yes. The airline development with reference to obtaining and securing contracts between the employees and the companies has greatly increased in activity because of the development of these lines. Now, this has been brought about not only by the fact that earlier some of the airlines were not organized to the extent that they are now, but further problems have been created by the introduction of heavier and faster planes, and the working out of the contracts between the pilots and the airline companies themselves over this factor alone took up a very extensive amount of our mediator time during the past year.

Now, there has been a policy over here at the CAB to establish certain new routes and to consolidate some of the present routes, such as, for example, an important case we are handling now arising out of the consolidation of Pan American with American Overseas Aviation Lines. The basis for this recent activity was a threat of a strike by the Pan American pilots over consolidation of seniority lists between the two lines.

The further thing that has increased activity in the airline field is the war situation during which a number of contracts have been made between the Government and some of the airlines with relation to this overseas travel which is an adjunct of the military, and at this time we are preparing to enter into securing a number of contracts between the airline employees, particularly the pilots and flight engineers, and their companies, which contracts will be in the nature of stand-by contracts to be put into effect quickly in the event that the war development should be such or an emergency situation should arise where that sort of traffic would be very greatly increased.

During the last war they had contracts of that type but they were a long time working them out, and the present thought is to have those worked out and set aside on a stand-by basis to be used if it becomes necessary.

We have also had indicated a good deal of work that will come up in the near future with reference to ironing out some of the craft lines on the airlines which have not been thoroughly worked out.

INCREASED WORKLOAD DUE TO UNION-SHOP BILL

There is one thing that we particularly desire to call your attention to that is going to greatly increase our workload in the next couple of years. That arises out of the passage by Congress of what is known as the union-shop bill. It is an amendment to the Railway Labor Act, by which union shops are now legal on the railroads and airlines. We have started the negotiation and have secured the execution of some of those contracts, but all of the nonoperating unions, of which there are 17 in one group known as the Standard Railway Labor Organizations, as well as the operating crafts, are now pressing the carriers of the country as a whole to give them union-shop contracts under this new law.

It is going to be necessary for us to go in on a great many railroads and with a great many organizations and work those things out. They are going to involve, we anticipate, enough work that, if we did not have anything else, it would pretty well keep our present staff busy in the next couple of years or more.

Those are some of the high lights that I will mention, and other lesser matters will be found in the statement we make here.

Mr. DENTON. I notice you show your workload statistics on page 9 of the justification. We shall insert that table in the record at this point.

(The information referred to is as follows:)

Case-load figures, 1935–52 (including airline cases)

	Average, 1935–44	1945	1946	1947	1948	1949	1950	1951	Estimated	
									1952	1953
Docketed:										
Mediation cases	171	358	260	245	305	268	266	284	285	290
Representation cases	128	186	176	209	167	139	128	133	135	140
Total cases	299	544	437	454	472	407	394	417	420	430
Dispositions:										
Mediation cases	159	359	379	239	260	304	229	269	300	300
Number of mediators		17	17	17	18	19	20	17	17	18
Representation cases	123	195	210	181	203	148	128	120	140	140
Number of mediators		7	7	7	6	5	4	4	4	5
Total cases	282	554	589	420	463	452	357	389	440	440
Total number of mediators		24	24	24	24	24	24	21	21	23
On hand end of year:										
Mediation cases	111	183	63	69	111	70	107	117	102	92
Representation cases	43	65	31	59	23	23	23	36	31	31
Total on hand	154	248	94	128	134	93	130	153	[1] 133	123

[1] To this figure should be added 300 potential cases arising from the nonoperating union shop hearing presently before the Presidential Emergency Board.

Mr. DENTON. Your workload has not increased a great deal since during the last several years.

Mr. EDWARDS. Part of what I was mentioning to you, of course, is a workload that we can estimate in going to be added with reasonable certainty, particularly these union-shop cases.

TIME REQUIRED TO HANDLE CASES

Mr. DENTON. You have 133 cases on hand. How long is the period from the time you take a case until you dispose of it, as an average? Can you give me any idea?

Mr. EDWARDS. There is no such thing as an average. Sometimes you will start one which looks like it will take a long time, and you will work it out in a day. However, a lot of these cases require days and weeks of conferences and mediation. I just would not know how to arrive at an average, unless perhaps Mr. Thompson could give you some information on that.

Mr. THOMPSON. Well, the figure, roughly, of an average of two cases per man per month is what has been developed over the years as a normal production figure. As far as the case figures are concerned, it might be said that the cases that we are getting now are in a large respect much more difficult than the ones we had in 1944, particularly on the airlines.

Mr. DENTON. Why is that?

Mr. THOMPSON. The employees on the airlines have become more completely organized since that time, and their contracts are quite technical, particularly those of the flight-service employees, which has resulted in a much larger amount of time spent per man on airline cases than we had on railroad cases in 1944.

Mr. O'NEILL. To put it another way, sir, may I say this: That the airline industry is a new industry by comparison with the railroads. The railroads have had organization generally since the turn of the century. Their agreements, which they call their books or schedules, have all been negotiated in years past. Now, all they do is come along for amendments to them.

In the airline industry, you have a new industry. The organization comes in, they are certified, and it means starting from scratch. They have an agreement which they take in the first instance. This is purely a recognition agreement.

Now, take the American Airlines or Pan American or any one of them. In this past year the organization would serve a request for 50 changes in the agreement, and the carrier would come along and ask for 40 changes in the agreement.

In other words, you are in that period of evolution where they have not settled on the contract itself. They have not built up their book.

Mr. DENTON. When did you first assume jurisdiction of these airline matters?

Mr. O'NEILL. In 1936. The act was amended then. But organization, with the exception of the pilots, did not really get going until after World War II. During the war period there were contracts with the ground forces, mechanics and flight-service people, and so forth, but they were more or less recognition agreements with rates of pay included in them.

Since the war, since 1946, the organizations have come along, and they are completely rewriting their schedules. We expect that that will continue over the next 2 or 3 years.

I say in one instance there were 50 demands from the union and 40 from the carrier. They want to change their entire agreements to meet changing conditions: bigger aircraft, more passengers, consolidation of stations. Seniority lists must be consolidated, and so forth.

I do not know whether the Secretary has a record here or not, but mediator time spent on air-line cases goes far beyond the time spent on railroad cases. With the air lines constantly expanding, we are going to have more of that.

EFFECT OF GOVERNMENT OPERATION OF RAILROADS

Mr. DENTON. Let me ask you about the railroads. Now, the Government is operating the railroads at least in theory or technically at this time?

Mr. O'NEILL. Yes, sir.

Mr. DENTON. How does that affect your work?

Mr. O'NEILL. Well, it does not affect the case load because the Army has repeatedly said, and they base their statement on the Executive order, that the rights and privileges under the Railway Labor Act are not at all disturbed by this Executive order.

The organizations are coming in everyday for changes in their schedules. All of the mediators are spending just as much time negotiating cases on the property as they had been prior to the seizure.

Mr. DENTON. How long have they been operating the railroads? About 2 years?

Mr. O'NEILL. Since August of 1950.

Mr. DENTON. Is there not something they can do to get their dispute settled?

Mr. O'NEILL. Hope springs eternal, sir, and we always think from week to week we are coming down to the end of the road, but we have been meeting——

Mr. DENTON. I know a year ago when you were up here they thought they were going to have it settled.

Mr. EDWARDS. I will tell you something about that. Those conferences are going on right now. We spent all yesterday afternoon until 6 o'clock with the engineers and the carriers. Another meeting is scheduled this afternoon. We worked on it last Saturday. I mean everyday a considerable portion of the Board members' time for handling that case is devoted to the mediation of the cases involving the engineers, conductors, and firemen which are not yet settled. We settled the trainmen's case.

Mr. DENTON. Of course, I have a good many division points in my district, but when I was home I think I heard more complaints about failure to settle this dispute than about any other thing. Of course, that is in railroad matters. They said they are working under an injunction, and they said they had not had a pay raise since I think it was 1948.

Mr. O'NEILL. 1948.

Mr. DENTON. And they said everybody else had had pay raises.

Mr. EDWARDS. The engineers' case has been narrowed from a great, complicated thing down to just two or three rules issues. We have just been butting our heads against that thing.

Mr. DENTON. I was on a television program, and that was the first question asked of me—when they were going to get this out of the way. I ran into that everywhere I went. But, as I say, I have a lot of division points in my district.

Mr. EDWARDS. If you could have answered that question, we would have liked to have had the answer.

Mr. O'NEILL. The carriers' offer has a retroactive-pay feature that takes it back to July 1950. This money is just being put in the bank for them.

Mr. DENTON. At least the operating brotherhoods did not seem very satisfied with that.

Mr. EDWARDS. The principal fight is the rules question—changes in operating rules such as interdivisional runs, changing of switching limits, pooling of cabooses, and so forth.

Mr. DENTON. That is the engineers, you say?

Mr. EDWARDS. Engineers, firemen, and conductors remain unsettled. We settled the trainmen's case.

Mr. DENTON. Since a year ago?

Mr. O'NEILL. May 25, 1951.

Mr. SCOTT. I think, sir, what you have learned at home from men on the property in a way will answer your question to this Board about what our experience is. It certainly has not created an atmosphere that is conducive to successful mediation: the very feeling that the men have on the property that their hands are tied.

Mr. DENTON. Does an injunction not always do that?

Mr. SCOTT. Yes, sir.

Mr. EDWARDS. Yes, sir.

EFFECT OF INJUNCTIONS ON MEDIATION

Mr. DENTON. It always causes trouble when you get an injunction.

Mr. EDWARDS. I will tell you something else that an injunction does for mediation. You see, we are mediating then in such a way that the employees are deprived of the ability to put much pressure on the carrier. The employees' economic threat and economic strength are nullified for the time being, so you do not have that pressure on both parties that you ordinarily might have.

Mr. DENTON. Do you think it would help you if they removed that injunction?

Mr. EDWARDS. Well, of course, if that injunction were removed I do not think this case would take very long to settle on some basis.

You have no idea what a back-breaking job we have had trying to settle those operating brotherhood cases. We have worked on those cases night and day, Sundays and holidays. The members of this Board have—I think anyone on both sides will tell you—battled those things like we were battling for our lives.

Mr. DENTON. Is there anything that could be done under those circumstances that would help the thing along?

Mr. EDWARDS. They will be worked out. The trainmen's case was eventually worked out. The engineers' case is not hopeless. We could not say there was no chance of doing it now. The firemen are before an emergency board now, and when that board reports on the 24th or 25th we will have a new look at that one. The conductors, of course, are more or less, you might say, on the side track for a little while. They have two principles in their case that are different from the principles in any of the other cases. We have run into such a stone wall between them and the carriers on those that we are going to have to back off and have another look at that one. It is a tough

one. Mr. Johnson can tell you about that. He knows more about it than anybody.

Mr. SCOTT. We have only persuasive influence. Our job is to sell something to both parties, and you can see it is quite difficult under the present situation, regardless of what may be the cause or the necessities of the particular situation.

Mr. DENTON. They settled that nonoperating brotherhood difficulty in short order.

Mr. EDWARDS. There were no rules involved there. It was just money. If there were only money involved in these cases, it would be a different story. Very few people understand the far-reaching importance of those rules to both parties, the complications that have to be thought about in working them out.

Mr. DENTON. Are the three of them just disputes over rules?

Mr. EDWARDS. Well, now, there is a principle which involves both rules and money in the conductors' case. That is a question there of changing the whole basis of the conductors' pay; that is, giving the conductor the advantage of additional increments because of working with heavier equipment, such as the engineers and firemen have. Their additional pay is based on the weight of drivers.

Then, there is another question as to whether or not road conductors and trainmen in passenger service will have the same basic day insofar as miles are concerned, 100 miles, as the other operating groups.

Now, the 40-hour-week propositions are involved in that for the operating men. The non-ops got the 40-hour week sometime back. The operating groups are now asking for it. The principle of it has been recognized, but due to the war situation the question of putting it into effect right now is involved, and also the amount of additions to wages that will be made to cover the transition from 1948. Just a list of complications in those cases would take the rest of the day.

Mr. DENTON. Now, that is still being handled by you?

Mr. EDWARDS. It is being handled by us. It is in our office every day.

PAYMENT OF FEES

Mr. DENTON. Before we leave this, are any fees paid by the disputants in the case, or are they all borne out of the Treasury?

Mr. EDWARDS. No fees paid by the disputants. When you get to the National Railroad Adjustment Board it is different.

Mr. O'NEILL. Well, I do not want to qualify it, but you asked if all the fees are paid by the Government. No. If an arbitration agreement is executed under the act there is a provision that the Government shall pay the fee of the neutral only. It does not pay the fee of the entire Board. The parties arbitrating bear——

Mr. DENTON. What does the Government pay?

Mr. O'NEILL. Just the fee of the neutral in the event it is appointed by the Government. Now, in many cases, particularly on the air lines, in view of the fact that the Government only pays $75, they get together and agree on a neutral and pay his fee. In that event there is no expense to the Government.

Mr. DENTON. Let me ask you something about the appropriation of $138,000 for arbitration and emergency boards.

Mr. EDWARDS. I misunderstood your question. I thought you asked if the parties pay a fee to the Government to obtain mediation service. The Government pays the fees of the neutral who is appointed by the——

Mr. DENTON. That is in the Mediation Service though, is it not?

Mr. EDWARDS. In the arbitration.

Mr. O'NEILL. The $138,000 is to take care of emergency boards and arbitration boards. The emergency boards are appointed by the President pursuant to section 10 of the act. Our experience over the years has been that that is the amount that is generally needed to cover the expenses of these boards.

Mr. DENTON. Where does this come in under that act? This is not a dispute over rules and working conditions?

Mr. O'NEILL. Yes, this is. A case starts. They negotiate on the property. They do not agree. They come to us. We cannot settle it. Then, if the organization sets a date to strike the property, section 10 provides that if in the opinion of the Mediation Board such a strike would deprive a substantial portion of the country of essential transportation service it shall notify the President. Well, we do that. We notify the President of the emergency, and in those cases he will issue an Executive order creating an emergency board pursuant to that section 10. He usually appoints three members to investigate the dispute and report to him on the matter. That is where the $138,000 comes in.

Mr. DENTON. As I understand that, the railroad would appoint one mediator?

Mr. O'NEILL. No. Those are three public members appointed by the President.

Mr. DENTON. They are all paid by the Government?

Mr. O'NEILL. All paid by the Government.

Mr. DENTON. How much do they get paid?

Mr. O'NEILL. Usually $75. In a very important case they may get $100 a day. That depends. The President fixes the fee in those instances.

Mr. DENTON. How many of those boards are there at the present time?

Mr. O'NEILL. Well, some years we run as high as eight or nine. Other years you may have three or four.

Mr. SCOTT. There are three outstanding now.

Mr. O'NEILL. Three outstanding now.

Mr. DENTON. Now, is there any clerical hire in connection with that?

Mr. O'NEILL. In some cases they may have a complicated case and they will ask the President for the assistance of an attorney or an economist or a statistician to sift out the exhibits that are presented in the case and make reports to the Board. That happens very, very seldom, however. Usually the Board does its own work entirely.

Mr. DENTON. You are asking for $138,000 this year?

Mr. O'NEILL. That is correct, sir. I may say that there are several instances throughout the country where grievances crop up. Ordinarily they would go to the National Railroad Adjustment Board. Their situation will be explained to you by the gentlemen following. But in certain instances they get a group of 50 or 100 cases and they do not want to wait for perhaps 2 years before they get the decision from the Adjustment Board, and they mutually agree to dispose of those cases on the property by arbitration. They will get up an agreement and set these cases in there and come to us and say, "Give us a neutral and we will dispose of these things."

That sort of a procedure is helping break down this backlog on the Adjustment Board. We have had more and more of them over the last 2 or 3 years. We think they are very helpful, and, in explaining this matter to the committee over the last 2 years, they thought that program might help the Adjustment Board.

Mr. DENTON. Last year you had $138,000?

Mr. O'NEILL. That is right.

1952 EXPENDITURES TO DATE

Mr. DENTON. How much of that will you expend?

Mr. O'NEILL. That will not be determined until the end of the fiscal year.

Mr. THOMPSON. As of right now about $70,000 has been obligated of that $138,000. I might say in 1951 actual expense was $143,000.

Mr. DENTON. In what year?

Mr. THOMPSON. In 1951 fiscal year. The Board asked for $150,000 for the 1952 fiscal year and was given $138,000 which we are working on at the present time. Approximately half of that is obligated as of right now. Three Boards are working at the present time, and all the bills for them are not in yet. We do not know what the experience will be the remaining half of this fiscal year, but on the basis of present performance $138,000 for this year should take care of that situation.

Mr. DENTON. How much did you ask of the Bureau of the Budget?

Mr. THOMPSON. We asked $150,000 for 1953, and we were given the same amount that we have this year—$138,000.

Mr. DENTON. What did you ask for the other appropriation—for "Salaries and expenses"?

Mr. THOMPSON. We asked $427,694, and the budget allowed $422,000.

REFERENCE TO CASE-LOAD STATEMENT

Mr. O'NEILL. May I note, sir, that you have placed in the record page 9 which reflects our case load. I might say that Mr. Edwards referred to the union-shop problem. That has been docketed as one case, but it really is more than 300 cases. There is an emergency board considering that problem now. The railroads are contesting the case on many bases, one of which is that the amendment to the act is unconstitutional. That perhaps may wind up in the courts. We do not know. But, in any event, no matter what this board says, we will have to spend many, many mediator days in the field on this union-shop problem.

There are different approaches by each carrier as to what they will do and what they will not do. As you know, there are many, many types of union-shop agreements. The carrier may go for agreement A and not for agreement B. You might have 15 of them. As they are developed throughout the country, the negotiations are going to get more extended because you will have different types of agreements, and the clauses will be culled from one to the other. It may take years before that thing is ironed out.

We expect that the time of all of the three additional men we are asking to fill out our staff will certainly be occupied with that problem alone.

Mr. DENTON. Does any other member of the Board want to say anything?

REQUEST FOR RESTORATION OF NORMAL MEDIATOR STAFF

Mr. SCOTT. I should like to add one thing, sir, particularly with regard to the restoration of our normal complement staff of mediators. When I came on the Board in 1948 we had a full staff of 25 mediators, including the Secretary. We are now asking for restoration of that staff. I think we have undertaken to show you that the need for them is greater now than it has been at any time.

Mr. DENTON. Why is it greater other than for the union shop and the airlines?

Mr. SCOTT. Well, I think that answers the question. We have the normal or a slight increase in the number of cases that come up from the property in the railroad industry, but, in addition to that, we have these involved cases and the increase numerically on the airline properties, and we have this imminent certainty of a vast increase of cases on the closed shop because it is certain when the Board makes its report we are going to have to go back on each property and sell as much of that report as we can to the parties on the property. There are potentially approximately 300 cases involved right there.

But the Congress in 1949 gave us an additional two positions as trainee mediators, and they were filled. Now those jobs are blank. We are not asking to refill those.

Mr. DENTON. I do not understand you.

Mr. SCOTT. They were trainees. We had not only the 25 mediators, including the Secretary, but we had two trainee mediators, two lower-rated positions, which could be filled with men who would move, after training, into the positions of mediators. They are blanked now. We have mediator vacancies that we are now seeking to fill by reason of losses in the staff during the past year.

I should like to emphasize what I presented to this committee last year as Chairman of the Board, and that is the threat that we have of losing some of our top men by resignation or retirement. That threat was realized last year. We lost our Secretary by death. We lost a mediator by death. We lost another man by resignation to go into the industry. And by moving up the two trainees to full mediator positions, of course, that filled two of those vancancies.

Now on the staff we have an imminent threat of losing within the year four of our top men. You see, the mediators are career men. They have been in the service, many of them, or most of them, beyond

10 years, and some between 20 and 25 years. Now we have four of the men in the top grade who by retirement or threatened physical disability——

Mr. DENTON. What is the top grade? What is their grade?

Mr. SCOTT. The top grade would be 14, would it not?

Mr. THOMPSON. Yes; grade 14.

Mr. DENTON. Is it GS?

Mr. THOMPSON. It is GS.

Mr. SCOTT. GS–14.

What we stated to the committee last year was a reality, and it is just as imminent now, only we do not have the source to draw from as we did last year by moving up from the lower grade two men we had trained as trainee mediators for the position. We do have applications on file of men whom we consider by training and experience are ready to enter the lower grade of GS–11 as mediator, the requirement being that they must have a minimum of 5 years in the industry negotiating for either management or the employees across the conference table. We just fortunately have a number of men of that kind who are seeking to come into this service.

Mr. Chairman, in conclusion I would just like to say that I think it essential that we be permitted to fill our complement in the lower grades not only because we have the immediate work for them to do but to have men trained to move up to these higher grades if and when these losses are sustained which are imminent. We had experience this year that bore out our prediction, and I think this coming year it is likely they will be more severe than they were last year.

EFFECT OF PERSONNEL LIMITATIONS

Mr. DENTON. Was it the Ferguson amendment that caused you to make these cuts?

Mr. SCOTT. Ferguson amendment.

Mr. DENTON. How did the Jensen amendment affect you?

Mr. LEWIS. They both affected us. The Jensen amendment makes us 90 percent whole. On top of that comes along the Ferguson amendment and cuts us 5 percent on our personnel money. It does not cut it off the appropriation. It cuts it off personnel only.

Mr. DENTON. Do you remember what we allowed you last year?

Mr. LEWIS. Yes. You allowed us everything we asked for.

Mr. SCOTT. We have endeavored to limit our demands to our actual needs so that we could present to the budget and the committee a request that they could go along with, and it is these over-all cuts that catch us—like the Jensen and the Ferguson amendments.

Mr. LEWIS. You allowed us $400,000. Then the Senate cut that to $394,247. Then on top of that comes the Douglas amendment with $15,753, which brought us down to $378,494.

FURTHER REFERENCE TO CASE-LOAD STATEMENT

Mr. THOMPSON. I would like to put something in the record about page 9 on the case load. This union-shop case is under 1 case number, but it has 302 subnumbers which represent disputes on 302 individual carriers. After the emergency board makes its recommendation, it is quite likely each one of those might develop into an individual mediation case, which would add around 300 cases.

Mr. DENTON. You mean that would be between the railroads and the brotherhoods?

Mr. THOMPSON. That is the nonoperating union-shop case now before the emergency board. So there are potentially 300 additional cases approximately to the case load figures as shown on page 9.

As of right now, we have 16 union-shop cases on our open docket, 10 on airlines and 6 on railroads, which are not included in the over-all union-shop emergency board dispute.

Mr. SCOTT. The reason that prediction is likely to be realized is that in this case they did not set up conference committees. Normally, on national handling, the carriers will set up conference committees, and powers of attorney will be held by those committees so that when a settlement is reached following one negotiation, that settles all the cases. But in this instance the carriers declined to set up conference committees, so there are just three-hundred-odd carriers before the Board individually. They have grouped together for representation purposes through counsel, but there is no one authorized to bind those individual carriers by any agreement.

Mr. DENTON. Does anybody else have anything they would like to say?

Mr. EDWARDS. Nothing except to thank you for the consideration. We appreciate it very much.

TUESDAY, JANUARY 15, 1952.

NATIONAL RAILROAD ADJUSTMENT BOARD

WITNESSES

B. C. JOHNSON, MEMBER
J. A. ANDERSON, MEMBER
LELAND HOWARD, ADMINISTRATIVE OFFICER

SALARIES AND EXPENSES

Amounts available for obligation

	1951 actual	1952 estimate	1953 estimate
Appropriation or estimate	$764,300	$575,749	$570,000
Proposed supplemental due to pay increases		18,000	
Total available for obligation	764,300	593,749	570,000
Unobligated balance, estimated savings	−153,510		
Obligations incurred	610,790	593,749	570,000

Obligations by activities

Description	1951 actual	1952 estimate	1953 estimate
Adjustment of grievances under collective bargaining agreements covering rail carriers and their employees:			
(a) Train service employees	$310,215	$309,734	$303,600
(b) Shop employees	84,853	69,770	75,100
(c) Other nonoperating employees	170,922	176,665	149,800
(d) Marine employees	44,800	37,580	41,500
Obligations incurred	610,790	593,749	570,000

Obligations by objects

Object classification	1951 actual	1952 estimate	1953 estimate
Total number of permanent positions	62	60	58
Full-time equivalent of all other positions	8	10	10
Average number of all employees	67	66	68
Average salaries and grades:			
General schedule grades:			
Average salary	$3,820	$4,196	$4,334
Average grade	GS–5.4	GS–5.4	GS–5.5
01 Personal services:			
Permanent positions	$227,442	$237,519	$250,545
Part-time and temporary positions	139,637	216,750	187,500
Regular pay in excess of 52-week base		800	950
Total personal services	367,079	455,069	438,995
02 Travel	23,597	33,704	30,125
03 Transportation of things	132	200	200
04 Communication services	6,306	6,000	6,500
05 Rents and utility services	129,324		
06 Printing and reproduction	66,804	85,276	81,680
07 Other contractual services	2,823	3,000	3,000
08 Supplies and materials	5,596	6,500	6,500
09 Equipment	9,129	4,000	3,000
Obligations incurred	610,790	593,749	570,000

Analysis of expenditures

	1951 actual	1952 estimate	1953 estimate
Unliquidated obligations, start of year	$64,894	$50,578	$48,327
Obligations incurred during the year	610,790	593,749	570,000
	675,684	644,327	618,327
Deduct unliquidated obligations end of year	50,578	48,327	46,327
Total expenditures	625,106	596,000	572,000
Expenditures are distributed as follows:			
Out of current authorizations	560,212	531,000	525,000
Out of prior authorizations	64,894	48,000	46,000
Out of anticipated 1952 supplemental for pay increases		17,000	1,000

Mr. DENTON. Mr. Johnson, will you give a general statement of the functions and workings of the Board?

GENERAL STATEMENT

Mr. JOHNSON. Yes, sir. For the record I would like to state that my name is B. C. Johnson. I am a labor member of the National Railroad Adjustment Board. Mr. Anderson is a carrier member. Mr. Howard is the administrative officer.

I think it might be desirable for me to give you a brief statement of the establishment and operation of the Board. The National Railroad Adjustment Board was created by act of Congress, approved June 21, 1934, 45 United States Code 153, for the adjudication of disputes between an employee or group of employees and a carrier or carriers, growing out of grievances or out of the interpretation or application of agreements concerning rates of pay, rules, or working conditions, which are handled in the usual manner up to and including the chief operating officer of the carrier designated to handle such disputes; but, if not adjusted in this manner, the disputes are then referred to the appropriate division of the Adjustment Board for settlement.

The Board is composed of 36 members, 18 selected and paid by the carriers and 18 selected and paid by organizations of railway employees which are national in scope. The act provides for four divisions of the Adjustment Board, each of which has jurisdiction over disputes involving certain groups of employees. For example, the First Division has jurisdiction over disputes involving train and yard service employees; the Second Division, shop craft; the Third Division, clerical forces, maintenance-of-way men, dispatchers, et cetera; and the Fourth Division, water transportation and miscellaneous.

During the fiscal year 1950, preceded by an agreement by the parties, there were established two regional or supplemental boards to reduce the large backlog of cases before the First Division. These boards are in operation and should do much to reduce dissatisfaction created by prolonged delays in the settlement of cases.

A number of railway labor organizations, prior to the creation of the Board, had no statutory instrumentality for the settlement of their disputes. The number of cases being submitted on behalf of these employees, as well as other employees, has continued rather uniform over a period of years but will probably show a decided increase within the next year. This is due to the adoption of a 40-hour workweek for nonoperating employees, which raised so many questions and was the cause of so many disputes upon its being put into effect that it has caused an increase in the number of cases submitted to the Board for settlement. Then, too, the voluntary board set up and maintained by the Express Co. and the clerks' organization has been terminated, which will mean a further increase in the number of cases referred to the Board.

It might be pertinent to point out that there are some 20 standard railroad labor organizations and approximately 1½ million railroad employees. There are about 130 class I railroads and hundreds of other classes. There are about 5,000 agreements in effect between the carriers and labor organizations covering rates of pay, hours of service, working conditions, et cetera.

During the past fiscal year, the four divisions of the Board received and docketed 2,027 cases and disposed of 1,720. Many of these cases involve hundreds of thousands of dollars.

EXPLANATION OF THE ESTIMATE

Our estimate for the fiscal year 1953 is $570,000. It is based upon our experience of more than 17 years.

Mr. DENTON. Now, you are asking for $5,749 less than was appropriated last year. Is that right?

Mr. HOWARD. How much was that?

Mr. DENTON. $5,749 less than last year.

Mr. HOWARD. We have some $23,000 less, sir, including anticipated deficiency because of pay increases. You are right.

Mr. DENTON. Let me ask you one thing about this. Has your workload increased since 1944?

Mr. HOWARD. I do not have the 1944 figures with me.

EXPLANATION OF INCREASE AND NUMBER OF EMPLOYEES

Mr. DENTON. Do you know any reason why your expenses have more than doubled since 1944?

Mr. HOWARD. Well, that is due largely to referees being used more. Their travel expenses are greater. There are many more disputes being disposed of, and our printing costs, therefore, are greater.

Mr. DENTON. Now, as I understand it, in this Board the railroads pay——

Mr. HOWARD. I have one other thing.

Mr. DENTON. Pardon me.

Mr. HOWARD. There were set up then, too, the two supplemental boards Mr. Johnson spoke of. There were two four-man boards set up to reduce the backlog of the First Division.

DIVISION OF EXPENSES

Mr. DENTON. Now, as I understand it, the railroads pay for one mediator and the unions pay for another mediator. Is that right? What expense does the Government have on this?

Mr. HOWARD. All of the members of the Board, sir, of which there are 36—

Mr. DENTON. Are paid by the Government?

Mr. HOWARD. Are paid by their organizations. The labor organizations select and pay 18. The carriers select and pay 18. Likewise on the two supplemental boards the carriers and the labor organizations do that.

Mr. DENTON. Are there two men on a board or are there three?

Mr. HOWARD. On four divisions there is the following: On three divisions there are five labor and five carrier members. On one division there are three labor and three carrier. On the two supplemental boards there are two labor and two carrier each.

Mr. DENTON. Now, what expense does the Government bear?

Mr. HOWARD. The Government pays the neutral in case of a deadlock. It pays for supplies, equipment, clerical help.

Mr. DENTON. Do they pay for the reporting?

Mr. HOWARD. We have no reporters. You mean stenographic reporting service?

Mr. DENTON. Yes.

Mr. HOWARD. No; we have none.

Mr. DENTON. How many employees do you have that make up this $570,000 paid by the Government?

Mr. HOWARD. At the present time we have 55 employees.

Mr. DENTON. Who are paid by the Government?

Mr. HOWARD. Yes, sir.

Mr. DENTON. What are they mostly? Clerical workers?

Mr. HOWARD. Yes. Each member has a secretary.

Mr. DENTON. You three would be paid by the Government, would you not?

Mr. HOWARD. No. These two gentlemen are not. I am. I am a Board employee. But all of the members of the Board are paid by their respective organizations.

Mr. DENTON. Now, you have, of course, a pay increase. How are you taking care of this pay increase without increasing appropriations?

Mr. HOWARD. We have a proposed supplemental. However, it still has not passed the Bureau of the Budget.

Mr. DENTON. Do you mean for the year 1952 or 1953?

Mr. HOWARD. 1952. We plan to absorb that for this current year. Of course, for 1953 it was included in the estimate that is now before you.

Mr. DENTON. Now, you ask for $460,774 for personnel.

SALARIES OF REFEREES

Mr. HOWARD. A large part of that, sir, is for salaries of referees. That is the neutral in the case.

Mr. DENTON. It also provides for $216,000 for compensation at rates not to exceed $75 for expense of referees appointed by section 3.

Mr. HOWARD. That is included in the four-hundred-and-some thousand that you spoke of. Our estimate for office force for 1953 is $251,495.

Mr. DENTON. I notice that money for referees was originally $250,000 for 1952. It was cut to $216,000 for 1953. Why that cut of $34,000?

Mr. HOWARD. Well, the lesser number of cases that they expect to have to use referees in. It is based upon our experience for this year in which we think perhaps we will have some surplus at the end of the year.

Mr. DENTON. You mean on the appropriation we gave you last year of $475,000-plus you expect to have a surplus?

Mr. HOWARD. That is right. We think we will have some surplus.

Mr. DENTON. You said something about a supplemental appropriation.

Mr. HOWARD. That is for the pay increase for the current year. There is an $18,000 proposed supplemental on that.

Mr. DENTON. Has that passed the Director of the Budget?

Mr. HOWARD. No. It is in there at the present time, but we just got a call for our estimate on that, and we told them that we think we can absorb the cost.

Mr. DENTON. Now, on page 5 of the justification, I would like to insert in the record the table showing the workload.

(The information referred to is as follows:)

	Number pending July 1	Number received	Total	Number closed	Number pending June 30
Fiscal year 1949:					
First Division	2,347	1,226	3,573	731	2,842
Second Division	34	63	97	63	34
Third Division	338	495	833	471	362
Fourth Division	3	91	94	61	33
Total	2,722	1,875	4,597	1,326	3,271
Fiscal year 1950:					
First Division	2,842	1,766	4,608	[1] 1,441	3,167
Second Division	34	63	97	66	31
Third Division	362	420	782	454	328
Fourth Division	33	103	136	114	22
Total	3,271	2,352	5,623	2,075	3,548
Fiscal year 1951:					
First Division	3,167	1,415	4,582	[2] 1,110	3,472
Second Division	31	95	126	69	57
Third Division	328	459	787	481	306
Fourth Division	22	58	80	60	20
Total	3,548	2,027	5,575	1,720	3,855

[1] Includes 224 closed by Conductors'-Trainmen Supplemental Board and 115 by Engineers'-Firemen Supplemental Board.
[2] Includes 277 closed by Conductors'-Trainmen Supplemental Board and 179 by Engineers'-Firemen Supplemental Board.

Mr. DENTON. Is there any comment any of you want to make on that table on page 5 at this point?

Mr. ANDERSON. Page 5 outlines our problem, unless for some reason you would like to ask any question that may occur to you for the purpose of clarifying. This is very complicated machinery, and people wonder why it works.

EFFECT OF CLOSED SHOP TO INCREASED CASE LOAD

Mr. DENTON. Your case load is increasing. That is, the number of cases pending, as shown by that table, is increasing. You have about 300 more cases a year each year undisposed of than you had before?

Mr. JOHNSON. That is right.

Mr. DENTON. You do not deal with the airlines?

Mr. JOHNSON. No, we do not deal with them.

Mr. DENTON. Does this closed shop cause you to have any more work than you had before?

Mr. JOHNSON. It has not up to this time.

Mr. DENTON. Do you expect it will?

Mr. JOHNSON. It has not been effective long enough. There are only a few railroads where they do have a closed-shop agreement, and it has not been in effect long enough to find its way to the Board.

Mr. DENTON. You are asking for two more personnel, two more office people. Why is that?

Mr. HOWARD. Do you want to give a statement on that, Mr. Johnson?

EFFECT OF PERSONAL SERVICES LIMITATIONS

Mr. JOHNSON. Yes. I would like to say for the record that one of the most difficult situations with which we have had to cope during the current fiscal year is problems arising from the restrictions on

personal services in the appropriation act. We have had to reduce the number of employees below what the Board feels is a bare minimum.

Upon the establishment of the National Railroad Adjustment Board under the amended Railway Labor Act, it was decided that each member of the Board should have a private secretary or confidential assistant. These positions were then excepted from civil service by Executive order so that each member might be free to select his own secretary, thereby fulfilling the needs of each individual member whose requirements might vary considerably. Of the positions included in our estimate of appropriation, 40 are private secretaries to members of the Board and of the two supplemental boards, recently established under the provisions of the act.

Section 3: First (u) provides for each of the four divisions of the Board to elect a secretary whose duties consist of the responsibility for the mechanics of receiving, docketing, and processing of cases, distribution of awards, et cetera. We then have an administrative officer whose duties consist of handling our financial and personnel affairs, preparing estimates of appropriations, obtaining supplies and equipment, et cetera. Even with the full number the Board feels should be provided, this leaves very few employees for the general work of the Board and the various divisions.

The cut of about 10 percent in the appropriation for the current year has required about 6 man-year vacancies under budget estimates. Inasmuch as the Board members themselves are not paid by the Government, they feel that an adequate working force should be provided. The Board has always operated economically and has from time to time been complimented by members of appropriations committees for so doing.

As an example, we had in our appropriation for the 1951 fiscal year 64 positions. The Board did not feel that two of these would be needed in the ensuing fiscal year, and, therefore, they were not included in our estimate. Thus, in addition to our voluntarily reducing the force by two employees, the reduction of 10 percent in amounts for personal services meant a cut of an additional six positions, which has created an almost unsurmountable handicap in the proper functioning of the Board and the respective divisions thereof. It has meant some members have had to do without secretarial assistance.

As a practical illustration, I happen to be one of those members who has been without a secretary. We get in the board room discussing cases, and there comes to my mind some previous similar case. I want a pamphlet copy of that particular award to give to the referee. Ordinarily, I would have my secretary get this from my file and bring it to the board room. Without a secretary, I have to leave the board room, go to my office, spend considerable time locating that particular award, and bring it back to the board room. In the meantime, the proceedings of the division are held up, wasting the time of all 10 members and perhaps a referee, and I will say usually a referee, sitting in the board room at the times that happens, or if they proceed, then I miss a part of the discussion, which may have serious results.

Under these circumstances, it appears to us that doing without these much-needed employees is a waste instead of a saving.

I might add that in preparing the cases for a referee the processing s delayed without a secretary.

Now, you can imagine, gentlemen, a member of the Board, who has many functions in preparing cases, not having a secretary to assist him and write up the cases in the form that you want to present them to a referee. The only way I can anywhere near come to coping with that situation is to go up and down the hall and see if I cannot beg somebody to write it up for me. When I do that, that delays their work. It really is a serious handicap.

EFFECT ON WORKLOAD DUE TO ARMY OPERATING RAILROADS

Mr. DENTON. Does the Army operating the railroads affect your work in any way?

Mr. JOHNSON. No, it does not.

Mr. DENTON. Has any other member of the Board anything to say?

Mr. ANDERSON. I am not here to represent any particular interest. Mr. Johnson and I are here to represent the National Railroad Adjustment Board. I want to support what he has said. I was one of the original members of the Board when it was organized. I have been coming down to Washington appearing before the Budget Committee, Mediation Board, and the various subcommittees of Congress. I want to say to you I have always received a very sympathetic hearing.

I don't want to make these observations in the way of complaining, but the last cut has handicapped our work. We have some two or three positions that we ought to have filled. Mr. Johnson's secretary that he speaks of is one of them. The carrier members have been able to borrow a secretary temporarily, and it would be very difficult for a member to function without a secretary.

These cases involve sometimes many thousands of dollars—sometimes as high as $500,000. The Supreme Court has said that an employee seeking relief under a labor contract—that the Adjustment Board has exclusive jurisdiction. And while our hearings are not comparable to a court hearing, the parties are not under oath, they are not subpoenaed, we don't go to the expense of a transcript—there is much required on behalf of Board members representing labor organizations and railroads in handling these cases and presenting them to a neutral when we disagree.

What makes the Railway Labor Act work is that the railroads and the employees want it to work. It wouldn't work if the two people didn't make it work.

I don't present this statement in a complaining way, but we do need just a wee bit more help. We are practical men, all of us. We have been used to handling matters involving thousands of employees, and we think we have some conception of economy. It is not our purpose to spend the Government's money uselessly. Over the past 17 years on many of the subaccounts we have turned back money. There have been one or two occasions when we ran short of money and the Board requested Congress and as soon as Congress could get around to it, they remedied it.

At the present moment we are handicapped.

Mr. DENTON. These cuts were made under the Ferguson amendment, I presume.

Mr. ANDERSON. Yes.

Mr. DENTON. How did the Jensen amendment affect you?

Mr. HOWARD. These amendments were sort of a two-pronged affair. If we didn't get caught by one, we got caught by the other. We would have had a little more leeway, however, under the Jensen amendment than under the Ferguson amendment because that cut our funds.

Mr. JOHNSON. In addition to what I have already said about handicaps so far as personal service is concerned—that is, being without a secretary—I would like to make this statement.

In the division that I happen to be a member of, we have a man that is being paid grade GS–6 that is doing a grade GS–9 work. It so happened that the assistant executive secretary of our particular Division of the National Railway Adjustment Board retired and that work of the assistant executive secretary had to be absorbed by a grade GS–6 man, and he is doing a grade GS–9 job for GS–6 pay.

Mr. DENTON. Thank you, gentlemen.

TUESDAY, JANUARY 15, 1952.

RAILROAD RETIREMENT BOARD

WITNESSES

WILLIAM J. KENNEDY, CHAIRMAN
FRANK C. SQUIRE, BOARD MEMBER
HORACE W. HARPER, BOARD MEMBER
FRANK J. MCKENNA, CHIEF EXECUTIVE ASSISTANT
GEORGE F. PUSACK, DIRECTOR OF FINANCE
MICHAEL RUDISIN, BUDGET AND FISCAL ASSISTANT

PAYMENTS TO RAILROAD RETIREMENT ACCOUNT

Amounts available for obligation

	1951 actual	1952 estimate	1953 estimate
Appropriation or estimate:			
Annual definite	$438,004,924		
Annual indefinite		$740,000,000	$690,000,000
Permanent definite, Public Law 141, 81st Cong	33,000,000	33,000,000	33,000,000
Total appropriation or estimate	471,004,924	773,000,000	723,000,000
Prior year balance available	156,167,276	19,181,151	19,181,151
Total available for obligation	627,172,200	792,181,151	742,181,151
Balance available in subsequent year	−19,181,151	−19,181,151	−19,181,151
Obligations incurred	607,991,049	773,000,000	723,000,000

Obligations by activities

Payment to railroad retirement account:

1951	$607,991,049
1952	773,000,000
1953	723,000,000

Obligations by objects

11 Grants, subsidies, and contributions (payment to railroad retirement account):

1951	$607,991,049
1952	773,000,000
1953	723,000,000

Analysis of expenditures

	1951 actual	1952 estimate	1953 estimate
Obligations incurred during the year	$607,991,049	$773,000,000	$723,000,000
Expenditures are distributed as follows:			
Out of current authorizations:			
Annual	607,991,049	740,000,000	690,000,000
Permanent definite		33,000,000	33,000,000
Out of prior authorization			

Salaries and Expenses (From Trust Funds)

Amounts available for obligation

	1951 actual	1952 estimate	1953 estimate
Limitation or estimate	$5,446,000	$4,845,808	$6,307,000
Proposed supplemental due to pay increases		368,000	
Total available for obligation	5,446,000	5,213,808	6,307,000
Unobligated balance, estimated savings	−686,171		
Obligations incurred	4,759,829	5,213,808	6,307,000

Obligations by activities

Description	1951 actual	1952 estimate	1953 estimate
1. Maintenance of accounts of employee earnings	$617,736	$692,277	$729,929
2. Processing and certification for payment of initial claims	2,917,022	3,151,313	3,885,577
3. Monthly recertification of awarded claims	626,074	675,758	868,457
4. Hearings and appeals	39,495	41,658	64,855
5. Actuarial services	55,153	82,517	161,404
6. General administration	504,349	570,285	596,778
Obligations incurred	4,759,829	5,213,808	6,307,000

Obligations by objects

Object classification	1951 actual	1952 estimate	1953 estimate
Total number of permanent positions	1,131	1,040	1,250
Full-time equivalent of all other positions	12	17	15
Average number of all employees	1,053	1,016	1,216
Average salaries and grades:			
General schedule grades:			
Average salary	$3,644	$4,085	$4,092
Average grade	GS–5.1	GS–5.1	GS–5.0
01 Personal services:			
Permanent positions	$3,812,887	$4,090,735	$4,933,161
Part-time and temporary positions	19,524	39,056	34,281
Regular pay in excess of 52-week base		15,771	18,917
Payment above basic rates	15,899	12,162	10,921
Total personal services	3,848,310	4,157,724	4,997,280
02 Travel	118,467	126,819	152,519
03 Transportation of things	8,198	8,991	10,638
04 Communication services	37,408	38,800	42,320
05 Rents and utility services	264,235	311,677	339,731
06 Printing and reproduction	20,533	51,265	40,976
07 Other contractual services	81,261	90,755	100,602
Services performed by other agencies	302,590	330,451	504,223
08 Supplies and materials	50,699	64,672	74,948
09 Equipment	27,063	27,443	33,864
13 Refunds, awards, and indemnities	70	400	400
15 Taxes and assessments	995	4,811	9,499
Obligations incurred	4,759,829	5,213,808	6,307,000

Analysis of expenditures

Note.—Expenditures for this account are reflected under the parent account in pt. III.

Mr. DENTON. Do you want to give a brief statement on the Railroad Retirement Board and its purpose and how it operates.

GENERAL STATEMENT

Mr. KENNEDY. If you want to take the time, I will read for the record a brief statement, if it meets with your approval, sir.

I am William J. Kennedy, Chairman of the Railroad Retirement Board.

The railroad retirement and unemployment insurance systems are self-sustaining. Except to a very small extent, our funds for paying benefits and for administrative costs come from taxes paid by railroads and railroad employees. The Railroad Retirement Tax Act provides for an equal tax on covered employers and employees, the present tax rate on each side being 6¼ percent of payrolls up to $300 a month for each employee. These taxes are collected by the Bureau of Internal Revenue and placed in the Treasury of the United States, from which they are transferred to the Board for the payment of benefits and for administrative costs under the Railroad Retirement Act.

You gentlemen are familiar with the fact that one of the three members of the Board represents railroad management, whose tax payments account for 50 percent of the funds for the maintenance of the system. Another member represents railroad labor, whose payments account for the remaining 50 percent of the cost. Both of these members naturally have a personal interest in safeguarding the interests of the groups which they represent. Therefore, I as Chairman and third member, assure you that the Board, collectively, has every possible incentive to encourage the continuance of efficient and economical administrtion of the Board's activities.

The budget justifications on a performance basis for the fiscal year 1953 break down the Board's operations into six major activities as follows: (1) Maintenance of accounts of employee earnings, (2) processing and payment of initial claims, (3) recertification monthly of awarded claims, (4) appeals activities, (5) actuarial services, and (6) general administration. All major activities have been related to basic work-measurement units and converted in terms of cost per unit and units per man-year. We have, in conformance with the performance budget point of view, prepared a series of tabular statements and narrative discussions emphasizing activities rather than organization units.

The Board has continued aggressively to seek the objectives of increased efficiency and economy of operations by constantly exploring ways and means for improving its own internal procedures and through clarification of information given to applicants and potential applicants so that a minimum of investigation will be required in processing claims. The staffing requirements and the flow of work of the various offices are under constant scrutiny, the operating procedures, forms, and form letters are constantly being examined and revised, substitution of mechanical for manual processes is being studied and other measures are being taken to improve the efficiency or economy of operations and to expedite the payment of claims.

In this connection, it is worth noting the Board's achievements since the close of the fiscal year 1946, when I became Chairman of the Board. The progress of the Board since 1947 can best be realized

by a comparison of operating results for the fiscal year 1947 and the last completed fiscal year, 1951.

During that period, in spite of the rising costs of all materials and supplies and numerous general pay raises for Federal employees, the administrative cost of paying out each dollar of benefits of all types decreased from 1.2 cents in 1947 to 2.8 cents in 1951.

As examples of increases in efficiency, let us consider four of the major activities of the Board in which 75 percent of the Board's employees were engaged in 1947, and 81 percent in 1951:

(1) In the work of processing compensation items and maintaining employees' accounts of service and earnings the production per employee man-year rose from 17,161 in 1947 to 34,000 in 1951.

(2) Processing and payment of initial claims rose from 88 per man-year in 1947 to 136 in 1951.

(3) The handling of monthly payments on the rolls increased from 34,121 per man-year in 1947 to 55,600 in 1951.

(4) Processing and payment of unemployment and sickness insurance claims rose from 2,233 work units per man-year in 1947 to 2,696 in 1951.

Mr. DENTON. To what was that increase due?

Mr. KENNEDY. Short-cuts, improving the efficiency, seeking constantly greater production, better-trained people—a number of things entered into it.

Aside from those engaged in general administration and miscellaneous minor activities, the remainder of the Board employees not covered by these four activities were principally engaged, in 1947, in reexamination work in connection with the 1946 amendments and, in 1951, in employment service activities.

The justification of our request for funds for administrative expenses during the fiscal year 1953 indicates an increase of approximately $1,100,000 over the available appropriation for the fiscal year 1952, as adjusted to reflect the effect of pay increases recently authorized by Public Law 201. However, our request for fiscal year 1953 actually is $500,000 less than the total amount we have requested for appropriation for the fiscal year 1952, since we have pending with the Bureau of the Budget a supplemental request amounting to $1,600,000. The increased requirements for the fiscal year 1952 and 1953 were occasioned by the enactment on October 30, 1951, of Public Law 234 amending the Railroad Retirement and Railroad Unemployment Insurance Acts. The amendments make very important changes in the retirement and survivor-benefit system and a minor change in the unemployment and sickness system.

In addition to increasing the volume of claim receipts through the introduction of a supplemental benefit to spouses of retired railroad workers, the amendments had the effect of adding much greater complexity to the processing and payment of claims under the Railroad Retirement Act and required a substantial addition to the working force of the Board. During the period of improvement which I previously discussed, the number of employees of the Board decreased from 2,831 in August 1947 to 1,999 in October 1951 on the eve of the passage of these amendments.

In other words, the number of employees as of October 1 was 832 less than they were in 1947, notwithstanding the increase in the volume of business and claims.

The 1953 budget anticipates that the average employment of the Board during that fiscal year will rise to 2,287, an increase from October 1951 levels of 288 employees, of which 217 will be chargeable to the appropriation "Salaries and expenses, Railroad Retirement Board."

I might say it is my best judgment at the moment that many of those people are temporary employees.

The staff of the Board at the present time is being expanded rapidly in order that the individuals entitled to initial or increased benefits under the amendments may be paid promptly.

Notwithstanding the contemplated increase in personnel and expenses, our justifications for the fiscal year 1953 disclose improved productivity for 1953 over actual results for 1951 and 1952, as revised on a supplemental basis, and where increased unit costs do show up, the increases are consistent with increases in salaries and prices of materials and other objects of expense.

I assure you on my own behalf and on that of the other Board members that we will continue to explore all possible avenues for administering the affairs of the Board in the most efficient and economical manner possible. I appreciate your courtsey in hearing me and I am now referring you to Mr. Frank J. McKenna, our chief executive assistant; Mr. George F. Pusack, our director of finance; and Mr. Michael Rudisin, budget and fiscal assistant to Mr. Pusack, who will explain the Board's budget request in detail. I should state also that Mr. Frank C. Squire, management member of the Board, and Mr. Horace W. Harper, labor member of the Board, are present to be of assistance to the committee.

Payment to Railroad Retirement Account

Mr. Denton. Do you want to speak now, Mr. Pusack?

Mr. Pusack. I have no formal statement to make, sir. If it is your desire, I can go into detailed justification of the various parts of the budget.

Mr. Denton. What page are you on there?

Mr. Pusack. I am on page 3, table 2. The item is "Payments to Railroad Retirement account" which shows an appropriation or estimate in 1953 of $690,000,000 as compared with the similar item in 1952 of $740,000,000.

Mr. Denton. What did we have in the budget last year?

Mr. Rudisin. Let me check that. Yes—the estimate as shown in last year's budget was $613,000,000.

Mr. Denton. That is, you estimated the $740,000,000 last year and the Congress cut it to $613,000,000.

Mr. Pusack. No, there has been no reduction in the appropriation. The $740,000,000 represents a revised estimate for the fiscal year 1952 based chiefly on pay raises granted in the railroad industry, on slightly increased traffic, but the major item of increase over the original estimate for 1952 was the change in the type of appropriation that occurred during last year's committee deliberations, changing the appropriation from the former base—I beg your pardon. That was not the reason for the change. The reason for the change was the acceleration in the collection of railroad retirement taxes by the Treasury Department.

EFFECT OF CHANGE TO ANNUAL INDEFINITE APPROPRIATION

Mr. DENTON. Didn't we have something last year where we proposed to make that a permanent appropriation just like Social Security?

Mr. PUSACK. The House committee sent the bill to the Senate calling for a permanent, indefinite appropriation as opposed to the previous specific or annual, definite appropriation that has been in effect prior to that time. When the bill reached the Senate, and after deliberations over there——

Mr. DENTON. They cut that out.

Mr. PUSACK. They changed it from a permanent-indefinite to an annual-indefinite, and that is the basis for the appropriation this year.

Mr. DENTON. Of course, the only thing about that is you have not been spending any general tax money at all. The Government in effect collects these special taxes and just turns them over to their account. Under this annual appropriation it looks like the Government spends three-quarters of a billion dollars and it is just a bookkeeping transaction.

Mr. PUSACK. Actually, I am not certain about this, but it is my impression that these figures do not enter into the Budget of the United States except as collateral information at the present time, except as to expenditures for benefit payments. In other words, I understand that this amount is not included in receipts and it is not included in appropriations.

Mr. DENTON. I remember looking for it in the appropriation.

Mr. PUSACK. That may be so. But the real expenditure occurs when we make our benefit payments, because actually these taxes are collected and the money is invested in Treasury notes, 3-percent Treasury notes.

Mr. DENTON. What happens is that the first of the year the Government pays this money over to the Railroad Retirement Board and then they collect it.

Mr. PUSACK. No, sir. Under the present arrangement, this money is credited to the Railroad Retirement Board after the taxes are collected.

Mr. MCKENNA. That was the change that was made in the last year.

ADVANTAGE OF TREATING ACCOUNT AS PERMANENT APPROPRIATION

Mr. DENTON. Why would you not rather have it on a permanent basis?

Mr. PUSACK. Frankly, we would, and conducted quite a campaign to retain the old basis. But the Bureau of the Budget and the President decided upon a change and the House committee approved that change last year.

Mr. KENNEDY. Which costs us approximately, Mr. Pusack, about $5,000,000 a year, doesn't it?

Mr. PUSACK. In interest.

Mr. DENTON. Why would it not be better just to put it like social security—let that go over to you permanently as it is collected, just like social security does? The interest question is out of it now.

Mr. PUSACK. If you are going to retain an indefinite basis of appropriation, I cannot see any reason for having an annual-indefinite rather than a permanent-indefinite.

Mr. DENTON. Of course, it might be subject to a point of order, but it just seems to me the interest question is out of the way and it seems to me it should be like social security.

It really doesn't belong in the figure there. It shows the Government spending close to three-quarters of a billion dollars and it is a bookkeeping transaction.

Mr. PUSACK. That is all it amounts to. They take it in as receipts one place and turn it over to us as an appropriation in another place.

Mr. DENTON. You think you would rather have a permanent-indefinite appropriation?

Mr. PUSACK. That would be a matter for decision by the Board. But I think personally that it doesn't make a bit of difference except it very possibly would eliminate a certain amount of bookkeeping transactions per year.

Mr. DENTON. Congress has to go over it every year, estimate how much it is, and sometimes make a supplemental appropriation on it.

Mr. PUSACK. No, sir. Even under the annual-indefinite there is no reason for a supplemental appropriation.

Mr. DENTON. Yes; that is right.

Mr. PUSACK. Because we get what is collected.

Mr. DENTON. What do you other members of the Board think about that?

Mr. KENNEDY. What is your notion, Frank?

Mr. SQUIRE. I don't see that it affects us at all to have it carried through as an appropriation. There is no benefit that I know of under this new indefinite method. There is no benefit to us at all in treating it as an appropriation.

Mr. PUSACK. As an annual appropriation rather than as a permanent appropriation.

Mr. SQUIRE. I cannot think offhand of any benefit.

Mr. DENTON. What do the rest of you think about it?

Mr. HARPER. Frankly, I have no notions on that except that we want to get the most we can out of it and I don't know whether this makes any difference or not. This is new to me, the suggestion that you make there, so I really don't know.

Mr. MCKENNA. What it means, Mr. Harper, is that under this present system we simply get the taxes that are collected when they are collected, but it has to be spelled out each year in the budget. On a permanent basis, we would still get all the taxes collected as they are collected, but we would be cutting out a lot of annual red tape.

Mr. HARPER. There would be no difference in the net result.

Mr. MCKENNA. No. Whatever difference there was we lost last year.

Mr. KENNEDY. And for the fellow who runs and reads, to say the least this is confusing.

Mr. DENTON. That is right.

Mr. KENNEDY. We will be governed entirely, Congressman, by your wishes in the matter.

Mr. DENTON. Of course, anything like that would be subject to a point of order. If there is any objection to it, somebody would raise a point of order and it would go out. But we could write a permanent provision in there.

Mr. MCKENNA. I don't think we would raise any objection.

Mr. DENTON. I was thinking that every year you submit it and we go over it. It does show the budget as six hundred-some-odd million dollars more than I think it should.

Mr. McKENNA. To my mind it is the most confusing part of the budget to understand. It was my experience last year to present the budget in an emergency and I spent more time on those adjustments than I did the entire administrative section of the budget.

Mr. DENTON. Well, you can go ahead. I did not mean to interrupt you.

EXPLANATION OF DECREASE FOR 1953

Mr. PUSACK. As I started to explain, the estimate for 1953 is $50,000,000, less than the estimate for 1952, and in addition to the tax collections estimated to be available for obligation during the year 1953, there is a further appropriation to be available to the Board of $33,000,000 by reason of legislation by Public Law 141 of the Eighty-first Congress, and this represents the fourth installment of the authority under that legislation as a settlement for military-service credits due to the Railroad Retirement Board, the military-service credits being the credits to the fund based on the Board's liability for paying benefits based on military service at the rate of $160 per month for each month that railroad workers were in service during periods covered by the military-service provisions of the Railroad Retirement Act.

That makes the total appropriation available in 1953 of $723,000,000. We also carry over, as an aftermath of this change that was made last year, an amount of $19,181,151, which is a reserve being held from the prior year. This represents the unexpended balance of amounts appropriated under the previous procedure whereby specific appropriations were made on the basis of estimated tax collections. This balance is not transferred to the Railroad Retirement account because the amounts appropriated to the Board under the procedures in effect through June 30, 1951, were in excess of the taxes actually collected.

Mr. DENTON. I did not quite get that. Would you repeat that, please?

Mr. PUSACK. Under the annual specific method of appropriation, we made an estimate of the tax collections and that became the appropriation subject, of course, to the decisions of the congressional committees. That money was available to us as an appropriation. When it actually became known, we either had some additional money coming or we had too much money actually in our hands, and from year to year that excess or deficit, as it may be, was adjusted in the following year's appropriation.

Well, when we came up to this cut-off date where they changed the type of appropriation to an indefinite basis, we had received or we had appropriated $19,000,000 too much. We never actually got this money, but it was held in reserve by the Bureau of the Budget in its apportionment procedure.

Now, the calculations of the Board indicate that the actual excess amount appropriated was $18,536,822. Accordingly, subject to agreement with the Bureau of the Budget, it is anticipated of the $19,181,151 balance, $18,536,822 eventually will be rescinded and the remainder of $644,329 will be transferred to the Railroad Retirement Act.

In making the change, the committee, last year, recommended that the Bureau of the Budget withhold any excess appropriations and adjustment be made.

Mr. DENTON. Would you give me the actual estimate of tax collections in 1952 and 1953 now. Is that in here?

Mr. PUSACK. Yes, that is the first line on table—$740,000,000 for 1952 and $690,000,000 for 1953.

Mr. DENTON. What I mean is how much do you expect to collect from the railroads and from the employees during that period of time?

Mr. PUSACK. Those are the amounts.

Mr. DENTON. Are all expenses of your Board paid out of that fund from collections?

Mr. PUSACK. All administrative expenses of the Railroad Retirement Board are derived from this trust fund.

Mr. DENTON. The Government does not pay anything?

MR. PUSACK. The Government does not pay anything.

Mr. DENTON. Was this a $50,000,000 actual cut or what does it amount to?

Mr. PUSACK. The $50,000,000 cut means that the actual collections in the fiscal year 1953 will be $50,000,000 less than the collections in the fiscal year 1952.

Mr. DENTON. Why is that?

EXPLANATION OF DECREASE IN COLLECTIONS IN 1953

Mr. PUSACK. That is because in the fiscal year 1952 we are really going to collect 14 months' taxes and the fiscal year 1953 we are going to collect 12 months' taxes.

Mr. DENTON. Why will you collect 14 months' taxes?

Mr. PUSACK. The reason we collect 14 months' taxes in fiscal year 1952 is that up to the fiscal year 1952 the railroad-retirement taxes were collected on a quarterly basis. At the end of 60 days after the end of each calendar quarter, the taxes were due and payable, and that is when they were collected. Beginning at the beginning of fiscal year 1952 the collector of internal revenue put into effect the new regulations which provided for the deposit monthly of the taxes as collected and as withheld from the employees' wages.

Mr. DENTON. This $50,000,000 is not a real savings, then? It really means that they were collected on a 12-month basis up to fiscal 1952 and beginning with fiscal 1952 it was a 14-month basis. That is really what it means.

Mr. PUSACK. That is right, sir.

Mr. DENTON. There has been no decrease in railroad employment?

Mr. PUSACK. No substantial decrease that I know of.

Mr. DENTON. All right—go ahead.

Mr. PUSACK. Unless you have some further questions, that would dispose of our comments on the "Payment to Railroad Retirement account."

SALARIES AND EXPENSES (FROM TRUST FUNDS)

The next data of interest in the justification are tables 3 and 4 on pages 6, 7, and 8 of the justification sheets.

Mr. DENTON. Let's put those in the record.

Mr. PUSACK. And table 8 on page 23, which is an explanation of the changes in claims workloads.

Mr. DENTON. Let's put that in and include tables 5, 6, and 7.

(The tables referred to read as follows:)

"Salaries and expenses, Railroad Retirement Board (trust fund)," itemization of estimates

	Estimate 1952	Estimate 1953	Increase (+) or decrease (−)
Amounts available for obligation			
Limitation or estimate	$4,845,808	$6,307,000	+$1,461,192
Proposed supplemental due to pay increases	368,000		−368,000
Obligations incurred	[1] 5,213,808	6,307,000	+1,093,192
Obligations by activities			
1. Maintenance of accounts of employee earnings	692,277	729,929	+37,652
2. Processing and payment of initial claims	3,151,313	3,885,577	+734,264
3. Monthly recertification of awarded claims	675,758	868,457	+192,699
4. Hearings and appeals	41,658	64,855	+23,197
5. Actuarial services	82,517	161,404	+78,887
6. General administration	570,285	596,778	+26,493
Obligations incurred	[1] 5,213,808	6,307,000	+1,093,192
Obligations by objects			
Total number of permanent positions	1,040	1,250	+210
Full-time equivalent of all other positions	17	15	−2
Average number of all employees	1,016	1,216	+200
Average salary and grades: General schedule grades:			
Average salary	$4,085	$4,092	+$7
Average grade	GS–5.1	GS–5.0	−.1
01 Personal services:			
Permanent positions	4,090,735	4,933,161	+842,426
Part-time and temporary positions	39,056	34,281	−4,775
Regular pay in excess of 52-week base	15,771	18,917	+3,146
Payment above basic rates	12,162	10,921	−1,241
Total personal services	4,157,724	4,997,280	+839,556
02 Travel	126,819	152,519	+25,700
03 Transportation of things	8,991	10,638	+1,647
04 Communication services	38,800	42,320	+3,520
05 Rents and utilities	311,677	339,731	+28,054
06 Printing and reproduction	51,265	40,976	−10,289
07 Other contractual services	90,755	100,602	+9,847
Services performed by other agencies	330,451	504,223	+173,772
08 Supplies and materials	64,672	74,948	+10,276
09 Equipment	27,443	33,864	+6,421
13 Refunds, awards, and indemnities	400	400	
15 Taxes and assessments	4,811	9,499	+4,688
Obligations incurred	[1] 5,213,808	6,307,000	+1,093,192

[1] Does not include supplemental request of $1,600,000 to cover increased workloads resulting from the enactment of Public Law 234, approved Oct. 30, 1951, recently submitted to Bureau of the Budget.

"Salaries and expenses, Railroad Retirement Board (trust fund)," statement relating appropriation estimate to current appropriation

A. 1952 requirements:		
1952 appropriation in annual act	$4,845,808	
Proposed supplemental due to pay increases	368,000	
Total		[1] $5,213,808
B. Deductions: Decrease in requirements for printing of informational pamphlets		−17,400
Subtotal		5,196,408
C. Additions:		
1. Increase in cost of building maintenance to provide additional square footage for expansion of files and for additional employees	$14,365	
2. Increase in number and cost of medical examinations	8,780	
3. Increase in miscellaneous items of equipment	6,421	
4. Increase in social-security-tax payments	4,688	
5. Increase in payments to Treasury Department	69,772	
6. Increase in payments to Social Security Administration	104,000	
7. Increase in workload of maintenance of accounts of employee earnings	35,826	
8. Increase in workload of processing and payment of initial claims	626,786	
9. Increase in workload of recertification monthly of awarded claims	118,077	
10. Increase in workload of appeals activity	23,197	
11. Increase in workload of actuarial services	74,115	
12. Increase in costs of general administration activities	24,565	
		+1,110,592
D. 1953 estimate		6,307,000

[1] Does not include supplemental request of $1,600,000 to cover increased workloads resulting from the enactment of Public Law 234, approved Oct. 30, 1951, recently submitted to Bureau of the Budget.

Statement of man-year requirements, by activity, related to workloads, to reflect man-year productivity—actual, 1951; original, 1952; revised, 1952; and estimate, 1953

Activity	Basic work measurement	Volume of work units				Units per man-year				Total man-years			
		Actual, 1951	Original, 1952 [1]	Revised, 1952 [2]	Estimate, 1953	Actual, 1951	Original, 1952 [1]	Revised, 1952 [2]	Estimate, 1953	Actual, 1951	Original, 1952 [1]	Revised, 1952 [2]	Estimate, 1953
1. Maintenance of accounts of employee earnings.	Number of compensation items.[3]	5,005,909	6,244,000	6,244,000	6,594,000	34.0	42.7	42.7	43.3	147.1	146.4	146.4	152.4
2. Processing and certification for payment of initial claims.	Total receipts	94,761	101,550	107,000	115,000	136.3	153.5	143.2	144.5	695.1	661.5	747.4	796.0
3. Monthly recertification of awarded claims.	Total in-force payments.[3]	4,779,661	5,125,000	5,700,000	6,396,000	55.6	63.2	56.0	57.1	85.9	81.1	101.8	112.0
3a. Reexamination of awarded claims.	Not measurable											244.4	
4. Hearings and appeals	Appeals dispositions	191	200	350	700	26.5	30.8	43.8	56.9	7.2	6.5	8.0	12.3
5. Actuarial services	Not measurable									11.9	14.9	28.9	34.2
6. General administration	do									106.1	105.3	108.8	109.5
Grand total										1,053.3	1,015.7	1,385.7	1,216.4

[1] Based on appropriations presently available.
[2] Total estimated requirements, including supplemental of $1,600,000 recently submitted to the Bureau of the Budget.
[3] Volume expressed in items; unit cost is cost per thousand units.

Statement relating workloads to costs to reflect unit cost, actual 1951, original 1952, revised 1952, and estimate 1953

Activity	Basic work measurement	Volume of work units				Unit cost				Total cost			
		Actual 1951	Original 1952 [1]	Revised 1952 [2]	Estimate 1953	Actual 1951	Original 1952 [1]	Revised 1952 [2]	Estimate 1953	Actual 1951	Original 1952 [1]	Revised 1952 [2]	Estimate 1953
1. Maintenance of accounts of employee earnings.	Number compensation items.[3]	5,005,909	6,244,000	6,244,000	6,594,000	$123.40	$110.87	$110.87	$110.70	$617,736	$692,277	$692,277	$729,929
2. Processing and certification for payment of initial claims.	Total receipts	94,761	101,550	107,000	115,000	30.78	31.03	33.48	33.79	2,917,022	3,151,313	3,582,626	3,885,577
3. Monthly recertification of awarded claims.	Total in-force payments.[3]	4,779,661	5,125,000	5,700,000	6,396,000	130.98	131.86	138.78	135.78	626,074	675,758	790,748	868,457
3a. Reexamination of awarded claims.	Not measurable											972,067	
4. Hearings and appeals	Appeals dispositions	191	200	350	700	206.78	208.29	137.65	92.65	39,495	41,658	48,178	64,855
5. Actuarial services	Not measurable									55,153	82,517	139,908	161,404
6. General administration	do									504,349	570,285	588,004	596,778
Grand total										4,759,829	5,213,808	6,813,808	6,307,000

[1] Based on appropriations presently available.
[2] Total estimated requirements, including supplemental of $1,600,000 recently submitted to the Bureau of the Budget.
[3] Volume expressed in items; unit cost is per thousand units.

Statement of activity costs, classified by major objects of expense, actual 1951, original 1952, revised 1952 and estimate 1953

Activity	Total cost											
	Actual 1951			Original 1952 [1]			Revised 1952 [2]			Estimate 1953		
	Personal services	Other	Total	Personal services	Other	Total	Personal services	Other	Total	Personal services	Other	Total
1. Maintenance of accounts of employee earnings	$482,648	$135,088	$617,736	$530,935	$161,342	$692,277	$530,935	$161,342	$692,277	$558,971	$170,958	$729,929
2. Processing and certification for payment of initial claims	2,567,102	349,920	2,917,022	2,734,308	417,005	3,151,313	3,058,251	524,375	3,582,626	3,323,374	562,203	3,885,577
3. Monthly recertification of awarded claims	294,635	331,439	626,074	313,977	361,781	675,758	385,216	405,532	790,748	425,168	443,289	868,457
3a. Reexamination of awarded claims							840,374	131,693	972,067			
4. Hearings and appeals	36,852	2,643	39,495	38,299	3,359	41,658	43,919	4,259	48,178	60,987	3,868	64,855
5. Actuarial services	49,183	5,970	55,153	74,246	8,271	82,517	122,527	17,381	139,908	140,899	20,505	161,404
6. General administration	417,890	86,459	504,349	465,959	104,326	570,285	477,868	110,136	588,004	487,881	108,897	596,778
Grand total	3,848,310	911,519	4,759,829	4,157,724	1,056,084	5,213,808	5,459,090	1,354,718	6,813,808	4,997,280	1,309,720	6,307,000

[1] Based on appropriations presently available.
[2] Total estimated requirements, including supplemental of $1,600,000 recently submitted to the Bureau of the Budget.

Analysis of claims receipts, estimates for fiscal years 1952 and 1953

	Estimated claims receipts		
	Original 1952 [1]	Revised 1952 [2]	Estimate 1953
Applications to be filed	80,900	[3] 83,900	[4] 88,000
Less inactive applications	−8,000	−8,200	−8,000
Reclassified to active status	12,000	10,500	13,000
Reopenings	10,800	13,650	16,000
Supplemental lump sums, no application filed	1,500	1,500	1,500
Residual payments, no application filed	4,350	4,400	4,500
Spouses' annuities		7,500	12,000
Less spouses filing concurrently with annuitants		−3,750	−6,000
Less less than 10 years of service cases and filed directly with SSA		−2,500	−6,000
Total receipts	101,550	107,000	115,000

[1] Estimates based on conditions existing prior to enactment of Public Law 234.
[2] Estimates based on operations under the amended act.
[3] Includes 74,900 cases of 10 or more years of service, 6,500 cases of less than 10 years of service filed with the Board but to be transferred to Social Security Administration, and 2,500 cases of less than 10 years of service filed directly with Social Security Administration.
[4] Includes 74,000 cases of 10 or more years of service cases, 8,000 less than 10 years of service cases filed with the Board but to be transferred to Social Security Administration, and 6,000 less than 10 years of service cases filed directly with Social Security Administration.

EXPLANATION OF INCREASES IN SALARIES AND EXPENSES APPROPRIATION

Mr. PUSACK. The appropriation "Salaries and expenses, Railroad Retirement Board, trust fund," for fiscal year 1953 is $6,307,000.

Mr. DENTON. What is that for?

Mr. PUSACK. That is the estimated administrative expenses of the Railroad Retirement Board for the fiscal year 1953. That compares with $5,312,808 which is the available appropriation for 1952 plus an adjustment for the proposed supplemental due to the pay increases.

Mr. DENTON. How much is that?

Mr. PUSACK. That is $368,000.

Mr. DENTON. For the pay increases?

Mr. PUSACK. For the pay increases. Resulting in an increase in all administrative expenses for 1953 over 1952 available appropriation as adjusted of $1,093,192.

I might say at this point, as referred to by the chairman in his statement, that actually the estimate for 1953 will be about $500,000 less than we have requested for use in 1952.

Mr. DENTON. That is because of the supplemental——

Mr. PUSACK. Because we have a supplemental request pending with the Bureau of the Budget.

Mr. DENTON. I want to go into that. Of course, we cannot act on that until it comes to us from the budget.

Mr. PUSACK. No, sir.

Mr. DENTON. And this 1953 request is almost $1,500,000 over the 1952 appropriations.

Mr. PUSACK. If you leave out the adjustment for the pay increase, yes, sir.

Mr. DENTON. But of course it would be less than the 1952 if your supplemental goes through.

Mr. PUSACK. Yes, it would be about $500,000 less than the 1952.

NONRECURRING EXPENSES

Mr. DENTON. Now, this indicates that there are some nonrecurring items of expense in this supplemental. Can you give me a little elaboration on that?

Mr. PUSACK. There are no nonrecurring items in the 1953 amount, but there will be a nonrecurring item in the 1952 amount as adjusted by the supplemental appropriation. In fact, the nonrecurring amount on the 1952 final revised basis as proposed by the Board would amount to $972,000. That represents a one-time expense of making the adjustments required by Public Law 234 which amended the Railroad Retirement Act.

EFFECT OF 1951 AMENDMENTS TO RAILROAD RETIREMENT ACT

Mr. DENTON. Would you just elaborate on that a little bit more—what that requires you to do.

Mr. PUSACK. On October 30, 1951, the President signed a bill amending the Railroad Retirement and the Railroad Unemployment Insurance Acts. This bill became Public Law 234. The amendments make very important changes in the retirement and survivor benefit system and a minor change in the unemployment and sickness system.

The new law requires no increase in the tax schedule for its system. However, the schedule as amended in 1946 calls for an increase in the retirement tax rate to 6¼ percent on employees and employers alike beginning January 1, 1952. The 6¼-percent tax rate is a maximum under the present schedule.

The principal features of the 1951 amendments are as follows:

Retirement benefits. 15-percent increase. Nearly all retirement annuities are increased by 15 percent. This increase is brought about by changing the regular and minimum formulas, and is apart from other changes which may increase the amount of annuity.

The regular annuity formula is based on an employee's average monthly compensation and his years of service. In the old formula, the following percentages were applied to the employee's average monthly compensation: 2.4 percent of the first $50, 1.8 percent of the next $100, and 1.2 percent of the remainder. The sum of these amounts was multiplied by his years of service. The maximum annuity payable under this formula on the basis of 30 years of service—the most that can be counted as long as service before 1937 is included—was $144.

In the new formula, the comparable percentages are: 2.76 percent, 2.07 percent, and 1.38 percent, respectively. The maximum annuity now payable on the basis of 30 years of service is $165.50. Eventually, when it is possible for an employee to receive credit for more than 30 years, annuities of more than $200 will be possible.

Mr. DENTON. And you have to recompute all those.

Mr. PUSACK. That is correct, sir. We had to recompute all the annuities which were in payment status as of the date of the enactment of those amendments.

Another change was the minimum annuity formula.

In the past, a minimum annuity was equal to the least of the following amounts: $3.60 times years of service, $60, or the employee's average monthly compensation. Under the new law, it is equal to the least of: $4.14 times years of service, $69, or the average monthly compensation.

Pensions paid to former carrier pensioners are also increased by 15 percent.

One of the principal elements requiring an addition to the workload was a new type of retirement benefit called a wife's benefit or dependent husband's benefit.

This benefit is payable only if the employee is 65 years of age or more and is receiving a retirement benefit. A wife must either be 65 years of age or more, or caring for an unmarried, dependent child under age 18. A husband must be 65 or over and, in addition, must have been receiving at least half of his support from his wife when she retired.

A wife's, or dependent husband's, benefit is equal to half of the retired employee's benefit up so a maximum of $40. It is subject to a reduction if she is also entitled to any benefit, other than a wife's, or husband's benefit, under the Social Security Act, or any other benefit under the Railroad Retirement Act. Moreover, it is subject to the same work restrictions as an employee's annuity.

ALTERNATIVES AVAILABLE TO EMPLOYEES ENTITLED TO RAILROAD RETIREMENT AND SOCIAL SECURITY

Mr. DENTON. A lot of men complained to me when I was home and they were the men entitled to both railroad retirement and social security. How are they affected?

Mr. HARPER. I think the easiest formula for that is that they have two alternatives and can choose the better of the two. One alternative is to have their railroad retirement based on their subsequent service plus that based on prior service. That is one alternative. The other alternative is to have their railroad retirement limited to the credits based on subsequent service plus social security.

Mr. DENTON. What do you mean by subsequent and prior service?

Mr. HARPER. Service subsequent to January 1, 1937, the effective date of the act.

Mr. DENTON. You call that subsequent service.

Mr. HARPER. And service before 1937 is known as prior service.

Mr. DENTON. Would you explain those alternatives again, with that in mind?

Mr. HARPER. Heretofore, my railroad retirement was based upon my subsequent service plus enough years of prior service to make the maximum of 30 years. In my case, it was 17 years of prior service and 13 years of subsequent service. Now, under the amended act, I cannot get credit for that 17 years of prior service and social-security credits too. I must give up one or the other. I must either give up credit for the 17 years of prior service and take the social-security benefits or give up the social-security benefits and retain the prior-service credits.

Mr. MCKENNA. In part, that arrangement is based upon the fact that service became taxable only after January 1, 1937.

Mr. DENTON. That is, they did not pay for it.

Mr. MCKENNA. They did not pay for it—and to some extent the size of the benefit now paid under the amended Social Security Act is over and above what the employee is currently paying for, with the effect that it is giving some recognition to the employee's working life prior to the effective date of the social security.

Mr. DENTON. Supposing a person did not take social security and elected to take the railroad retirement. Would he get the increases?

Mr. HARPER. No; not in the formula. He loses the 15 percent increase in the calculation—in the computation.

Mr. DENTON. His pension will be just the same as it was before the bill passed.

Mr. HARPER. We add the savings clause that in no circumstances can his annuity be less than it was prior to November 1.

Mr. DENTON. But then he can figure his social security and his subsequent railroad service, and if those two make more that way, he can take it.

Mr. HARPER. That is right. The formula is complicated, but the easiest way is to think of it in terms of prior service and social-security credits. You cannot have credit for both. You have to elect to take one and forego the other.

Mr. DENTON. That is because he did not pay for prior service.

Mr. HARPER. That is right—and because social security gives credit directly to prior service, the formula is slanted so that actually they do get credit for prior service. It has that effect, anyway.

Mr. KENNEDY. We might sum up a lot of things when we say to you, sir, that because of the recent amendments to the act, we estimate that it is going to require approximately 874,000 adjustments.

Mr. PUSACK. My purpose in dealing with these provisions at length is to give the committee an insight into the things that the examiners in the Railroad Retirement Board have to take into consideration in arriving at their results under this new legislation. Every time I mention a limitation of any kind in going through here, that is something the examiner has got to look for. He has got to make the comparison of this with that over on the railroad retirement side and, having arrived at a certain result on the retirement side, he then has to go over on the social-security side and see whether the inclusion of social-security wages and service will result in any benefit to him and get the advantage of that. That all takes time and effort. Therefore, I am going into these details more than might be necessary because if I recited them off as changes they would not mean a thing.

Mr. MCKENNA. George, inasmuch as the Congressman has been confused by the questions of some of his constituents on this dual-benefit provision, he might be interested in knowing that the dual-benefit provision applies not only in the case where the individual is receiving benefits under social security, but even where he is potentially entitled and has failed to apply. So that in some instances, when we get the earnings from social security and establish his eligibility under social security, he may, for the first time, know that he is eligible under social security and have to go and apply. But we will, nevertheless, apply the reduction or the alternative that Mr. Harper mentioned.

Mr. HARPER. We would have to recompute that each year where it is potential rather than real. A man has enough social security, shall we say, to have a $40 annuity. As time goes on, he is entitled, maybe, to a $45 annuity and then it gets to be $50. We have to make those recomputations each year. There is a considerable job in the policing of those accounts at all times.

Mr. DENTON. All right—proceed.

Mr. PUSACK. The amendments established a new minimum guaranty.

It will apply in a considerable number of relatively short service or low earnings cases. Under this provision, an employee retiring under the railroad system is guaranteed that the total retirement benefits payable, including social-security benefits, if any, will not be less than the benefits that would have been payable under the social security system, had the railroad employment been creditable under that system.

There is a change which is a vital factor in claims adjudication with respect to service after 65.

Service performed after age 65 is now creditable toward retirement benefits. This provision applies to retired employees as well as to those who will retire in the future.

The inclusion of service after age 65 may increase considerably the annuities of persons retiring after age 65 with less than 30 years of service.

It used to be that a man might defer his retirement to age 70 and work right up to that date, and when they computed his annuity, they went back and cut off at age 65 and that is what he got credit for. Under the new provisions, they throw that extra 5 years in in the computation of his annuity.

Mr. DENTON. He worked over 65 and did not get any benefit at all under the old law.

Mr. MCKENNA. Except when he died, his survivors got credit. But he did not get any credit toward his lifetime annuity.

Mr. DENTON. But he does now?

Mr. MCKENNA. He does now.

Mr. PUSACK. And of course that required a reexamination of all the annuity certifications to date to determine whether there had been a service after age 65 that had not been credited to him.

There is another provision for recomputations for service after retirement.

The former restriction against the recomputation of annuities to take into account service performed after retirement is removed by the 1951 amendments.

Even after he retires, if he returns to service, that service, on application, may be taken into his record to increase his benefits.

The next point is the restriction against dual benefits which we discussed here a little while before, so I will not go into that. That is where a man has eligibility both under social security and railroad retirement.

The 1951 amendments restrict the payment of retirement benefits to employees with 10 or more years of creditable railroad service. Previously, a retirement annuity was payable at age 65 regardless of the length of service the employee had when he retired. The age and service requirements for the various types of retirement annuities are now as follows——

Mr. DENTON. Just a moment. Under the new law he has to have 10 years' service to be entitled to retirement?

Mr. PUSACK. Yes, sir.

Mr. DENTON. That is, he gets social security under the 10 years.

Mr. PUSACK. If he has less than 10 years of railroad service, including his prior service or service prior to January 1, 1937, the case is transferred to social security.

Mr. DENTON. Now, what do you do about adjusting funds for that.

Mr. PUSACK. There is a provision in the new law for that which calls for a study by the Railroad Retirement Board and the Social Security Board to arrange for an adjustment of funds.

The service requirement for a full-age annuity at age 65 is 10 years of service, and for women, at age 60, 30 years of service. A reduced-age annuity can be granted at age 60 with 30 years of service.

Mr. DENTON. Women have to have 30 years of service to draw a pension?

Mr. PUSACK. At 60.

Mr. McKenna. At 65 they draw it with 10.

Mr. Pusack. An occupational disability annuity can be granted with 10 years of service at age 60 or before age 60 with 20 years of service if the employee has a current connection with the railroad industry; that is, was actually working on a railroad at the time that the disability was incurred.

A total disability annuity is payable at any age to anybody who has 10 years of railroad service. If an employee has less than 10 years of service, he will not qualify for benefits under the Railroad Retirement Act. When he is ready to retire, his railroad credits will be transferred to the Social Security Administration.

The new 10-year service requirement does not affect employees to whom retirement annuities were awarded before the enactment date of the 1951 amendments. Also, wives—or dependent husbands—of such employees may draw a monthly benefit if they are otherwise eligible.

There is a change in the annuity beginning date.

Under the old law, an annuity could not begin earlier than 60 days before the employee filed his application. That time limit has been changed by the 1951 amendments to 6 months.

There is a change in the joint-and-survivor elections whereby an employee made an election to have his wife receive benefits jointly with him provided there was a slight reduction made in his annuity at the same time.

An employee who has made a joint-and-survivor election to provide an annuity for his wife at his death may now revoke that election is he wishes. His reduced annuity will then be raised to the full amount. When a wife or husband for whom the election was made dies before the employee, the election is automatically revoked.

That covers the changes with respect to retirement annuities.

Now, there are changes with respect to survivor benefits. The survivor benefits are much higher than before, with a few exceptions, by at least one-third.

Mr. Denton. Do you believe it would be easier to just put the book in the record?

Mr. Pusack. It would be, if you desire. This book contains examples, and I am reading through here and eliminating the examples.

Mr. Denton. I see. Go ahead, then.

Mr. Pusack (reading):

The increases are brought about by (1) changing the method of computing the average monthly remuneration; (2) increasing the minimum basic amount; (3) applying higher percentages to the basic amount in figuring the amount payable to survivors; (4) increasing the factors for maximum and minimum benefits to a family; and (5) adding a new minimum guarantee provision.

The average monthly remuneration is not the employee's average earnings for the months he worked, but, roughly his total earnings—railroad and social security—after 1936 divided by the number of months after 1936 and before death or retirement.

The maximum amount of earnings creditable for any year is raised from $3,000 to $3,600, and the maximum average monthly remuneration, from $250 to $300.

All monthly survivor benefits and the insurance lump sum are based on a figure called the basic amount. The formula applied to the average monthly renumeration for figuring the basic amount remains the same—40 percent of the first $75, plus 10 percent of the remainder, plus 1 percent of the result for each year after 1936 in which the employee's combined railroad and social security earnings were $200 or more. The minimum basic amount is raised from $10 to $14.

The proportions of the basic amount used to compute the benefits for individual beneficiaries are increased. Before the 1951 amendments, a widow's benefit

was equal to three-fourths of the basic amount and each child's or parent's, to one-half. A widow now receives the full basic amount, and each child or parent, two-thirds of that amount.

Do you think I am going into too much detail here?

Mr. DENTON. I believe you are.

Mr. MCKENNA. Why couldn't Mr. Pusack put that in the record, striking out the material that he does not consider necessary?

Mr. PUSACK. All right. I will mark up a copy for you beginning on page 12.

(The remainder of the document referred to reads as follows:)

If the widow had been receiving a wife's annuity, her widow's benefit cannot be less than that amount.

If the total monthly benefits payable are more than $30, and also more than $160 or 2⅔ times the basic amount, the total under the new maximum formula is reduced either to $160 or 2⅔ the basic amount, whichever is less.

The new factors of $160 and 2⅔ times the basic amount are also one-third higher than their corresponding factors in the old formula. But the $30 factor is 50 percent higher than the former $20. Moreover, the removal of the old limitation of 80 percent of the average monthly remuneration often results in increases above 33⅓ percent.

The minimum payable to a family is raised from $10 to $14.

25-PERCENT INCREASE IN INSURANCE LUMP SUM

The insurance lump-sum benefit is increased 25 percent. Before, it was equal to 8 times the basic amount; now it is 10 times that amount.

NEW MINIMUM GUARANTY

A new minimum guaranty has been added by the amendments. Under this provision, an employee is guaranteed that the total monthly benefits payable to his survivors, will in no case be less than the total amount that would have been paid under the social security formula. For some years to come, the social security formula will in the great majority of cases be more liberal than the railroad formula; in effect, therefore, survivor benefits have been increased considerably more than 33⅓ percent, on the average.

WIDOWER'S BENEFIT

In the 1951 amendments provide a new type of monthly survivor benefit. A widower of a deceased woman employee who was completely insured at death. is now entitled to a monthly benefit beginning at age 65, if he was receiving at least half of his support from his wife at the time she retired or died.

ELIGIBILITY REQUIREMENTS

The new provisions liberalize the conditions under which certain survivor benefits are payable. The child of a deceased woman employee who was insured at death is now entitled to a monthly benefit, even if the father was a part of the same household or contributing to the child's support. Also, a child's benefit is no longer terminated if he is adopted by a stepparent, grandparent, uncle, or aunt.

A parent who was not wholly dependent on the employee may now qualify for benefits, if he was receiving at least half of his support from the employee at death. Also, the requirement that a parent must file proof of dependency within 2 years after the employee's death is eliminated.

BENEFIT BEGINNING DATE

An application for monthly survivor benefits may now be filed any time within the 6 months following the month in which the employee died, without loss of benefits. If it is filed later, benefits can be retroactive to the beginning of the sixth month before the month in which the application is filed.

Under the old law, the time limit for filing without loss of benefits was 3 months after the month of death; and, unless the application was filed within that time, benefits could not begin earlier than the month of filing.

SERVICE REQUIREMENTS FOR SURVIVOR BENEFITS

The requirement that an employee must have at least 10 years (120 months) of creditable railroad service in order to be entitled to retirement benefits also applies to survivor benefits. When a railroad employee dies with less than 10 years of service, any benefits, other than a residual payment, which may be due his survivors will be paid by the Social Security Administration. The benefits will, of course, be based on combined railroad and social-security employment, the same as though the benefits were being paid under the railroad retirement system.

The 10-year service requirement has no effect on survivor benefits being paid before the enactment date. The beneficiaries of employees who died with less than 10 years of railroad service, if they were already on the rolls, will continue to receive their benefits as long as they remain entitled.

If a residual payment ever becomes due, it will be paid by the Board. It will be equal to 4 percent of the employee's creditable railroad compensation for the years 1937–46 and 7 percent thereafter, minus (1) that portion of any old-age benefits paid by the Social Security Administration which is attributable to the employee's railroad service; and (2) the full amount of any survivor benefits paid.

WORK RESTRICTION

The amount a beneficiary may earn in social security employment without forfeiting his monthly survivor benefit is increased to $49.99 a month. The restriction requiring forfeiture for any month the beneficiary works for a railroad regardless of the amount he earns, remains the same.

In this connection, the Social Security Act was also amended so that either retirement or survivor benefits being paid under that act are suspended for any month in which the beneficiary earns more than $50 in railroad employment.

OBLIGATIONS BY ACTIVITIES

Now, to go over to table 3 on page 6, "Obligations by activities," the results of all these changes——

Mr. DENTON. That shows an increase of $1,093,192. Now, the principal amount of that is made up in processing claims.

Mr. PUSACK. Yes, sir. And the processing and payment of initial claims consists of the adjudication and certification to the Treasury Department for initial payments. The activity includes operations required for development, determination of benefits, certification for payment of claims, handling general and preliminary claims inquiries, informal protests, and so forth.

The units of productivity for 1953 per man-year were 144.5, as compared with an initial estimate for 1952 of 153.5.

Mr. DENTON. I believe these tables are in the record.

Mr. PUSACK. Yes, sir.

PERSONAL SERVICES

Mr. DENTON. Let me ask just this question. For personal service, how much of an increase do you ask?

Mr. PUSACK. On personal services there is an increase of $839,556.

Mr. DENTON. How many new positions are you asking for?

Mr. PUSACK. The new positions are 210.

Mr. DENTON. How many were you cut under the Ferguson amendment last year?

Mr. PUSACK. Under the Ferguson amendment last year—you see, the House amount coming out of the committee was $4,221,916 and then there was the Cordon amendment, I believe they called it, of $211,000, so it came out of the Senate committee at $4,010,820. Then

I believe the next cut was the Ferguson amendment of $211,096, bringing us down to a basic amount for——

Mr. DENTON. How many employees did you cut?

Mr. RUDISIN. We had originally provided in the budget 1,137 employees for 1952, but with the cuts—before our amendments—we contemplated usage of 1,016 or a difference of 121—a decrease of 121 equivalent employees.

Mr. DENTON. And you are asking for an increase of 210. That is about 70 more than you had before the cuts of last year.

Mr. PUSACK. Yes, sir.

Mr. DENTON. How many did you add this year on account of the new workload, or will you add?

Mr. PUSACK. We are going up gradually as we can assimilate these people.

Mr. RUDISIN. In 1952 we proposed to add the equivalent of 370 employees.

Mr. DENTON. Is that in that $1,600,000 estimated supplemental?

Mr. PUSACK. Yes, sir.

Mr. DENTON. Now, that is, of course, a temporary expenditure.

Mr. RUDISIN. There will actually not be that many number of employees because some of the 370 will come from extensive overtime that will be worked.

Mr. PUSACK. The number of permanent positions for fiscal 1952 will increase 186.

STATUS OF WORK OF ADJUSTING PENSIONS

Mr. DENTON. How are you coming with adjusting all these pensions?

Mr. PUSACK. We are proceeding along at a fairly rapid rate on the more simple type of changes, those which require a simple method of adjudication or where the change can be made mechanically.

For example, in order to get the results in the hands of the people who are affected, some results, we will put it that way, as fast as possible, we mechanically adjusted the claims in the in-force status as of the amendment date by applying the percentage increases in all cases except where the provisions of the amendment indicated that that might result in an overpayment.

Mr. DENTON. Can you do it by machines?

Mr. PUSACK. Yes. That phase of it was done by electric accounting machines.

Mr. HARPER. Only as to the basic amounts, however.

Mr. MCKENNA. I might say this for the record. The law became effective on November 1 and in the checks that went out on December 1, we had 400,000 adjustments. Now, there is a total, as the chairman said, of something like 874,000 adjustments.

The mechanical operation, although it may be referred to as "simple," I think the word to use is "quick," but it is certainly not simple. Some of them took 100 different steps through the various accounting machines in order to make one adjustment.

We will be able to do probably about half a million of those adjustments mechanically. The big job has to be done manually. It is a smaller number, approximately 300,000, but there is no mechanical process by which it can be done.

Now, those consist chiefly of the new spouses' annuities which we anticipate will amount to approximately 85,000. That is an annuity for the living wife of the living annuitant. That involves going out, obtaining an application, obtaining birth-date evidence for the spouse, obtaining a marriage certificate, her social security account number, a check with the Social Security Board to see whether or not she is potentially eligible for benefits in her own right, and finally the computation of her annuity. That is one big item.

A second item is the application of this dual-benefit provision to the annuities on the roll. We had, in making the adjustment to the living annuitants, to hold out a certain number of these cases where we could not take the calculated risk of giving them the 15 percent and find later that we had to make a reduction because of potential eligibility under social security. There are approximately 85,000 of those cases that will have to be handled more or less manually. I beg your pardon—16,000 of those cases.

Another tough group is the application of the social security minimum provisions in the survivors' claims. There are approximately 100,000 of those cases. Twenty thousand of those we can do mechanically. The remainder—it is a terrific job applying that social security formula because of the recomputation provisions. I believe under the social security formula, a man is entitled to the highest amount as computed, (1) at the quarter of eligibility; (2) at the quarter of filing; (3) at the March 31 quarter each year thereafter.

In some cases you can tell at a glance which is the highest point. In many cases they have to be recomputed at each of those points. We are running into a terrific amount of trouble in those. As I say, there is something over 75,000 of them that have to be done manually.

Mr. DENTON. You ask for $842,000-plus. That is because of this extra work?

Mr. MCKENNA. That is right. Well, in the 1953 budget it is not because of the figures that I have mentioned, but because of the factors that are involved in these cases. In other words, our workload is not increasing too much numerically, but the adjudication process is being slowed down tremendously until we have lived with this law long enough to determine the shortcuts.

Now, the cases that are being currently received are being paid under the new formula.

Mr. DENTON. What about the old annuitants?

Mr. MCKENNA. The old annuitants are receiving the amount previously in force plus, in every case that we can take the risk, the 15 percent increase or the 33 percent increase in the case of the survivor.

Mr. HARPER. Let's assume that an annuity is $100. We apply immediately the 15 percent to make that $115, and in the first month's check the man got the $15 increase. We didn't hold up the basic increase pending the adjustment of all these other final adjustments. So that in the case of annuities, we applied the basic 15 percent; in the survivor benefits, we applied the 33⅓, making adjustments as we get to that in the other phases.

Mr. MCKENNA. In 85,000 cases in which credit for service after age 65 was due, we were able to include that adjustment in the January 1 check. If you don't think it was a terrific job working this out with the Treasury so they could break their plates—you see, they send over to us each month a transcript of each in-force payment. We have to

audit that and send it back to them in time to get the checks out. We worked out an ingenious method in 1946 for making adjustments mechanically.

Mr. DENTON. But you have been doing this with your old staff.

Mr. MCKENNA. That is right.

Mr. PUSACK. The old staff augmented.

Mr. DENTON. What do you mean by that?

Mr. PUSACK. The Chairman spoke of a Board force of 1,999 in October, just before these amendments were passed.

FINANCIAL ANALYSIS OF FUND

Mr. DENTON. I would like to get this table in the record. Let's put this table in the record showing the payments into and out of the fund. Can we bring that down to date for this year?

Mr. PUSACK. This is it here.

(The document referred to reads as follows:)

Financial operations under the Railroad Retirement Act, by fiscal years 1938–53

Fiscal year	Appropriation account		Railroad retirement account				
			Receipts			Net benefit payments [1]	Balance at end of period
	Appropriation	Balance at end of period	Transfers from appropriation	Interest on investments	Total		
Total through June 1938	$146,500,000	$93,692	$146,406,308	$1,410,822	$147,817,130	$87,169,151	$60,647,979
1938–39	118,250,000	11,250,000	107,093,692	2,201,877	109,295,569	107,131,438	62,812,109
1939–40	120,150,000	10,750,000	120,650,000	2,282,516	122,932,516	114,025,141	71,719,484
1940–41 [3]	113,600,000		124,350,000	2,533,858	126,883,858	121,799,903	76,803,439
1941–42	140,850,000		140,850,000	3,143,059	143,993,059	126,656,781	94,139,717
1942–43	214,801,000		214,801,000	5,776,849	220,577,849	130,863,977	183,853,589
1943–44	262,720,000		262,720,000	9,837,049	272,557,049	135,215,326	321,195,313
1944–45	308,817,000		308,817,000	15,240,493	324,057,493	142,527,642	502,725,164
1945–46	230,000 291,913,000		[4] 230,000 291,913,000	19,881,329	312,024,329	153,815,253	660,934,240
1946–47	298,233,000		298,233,000	24,187,274	322,420,274	173,101,153	810,253,361
1947–48	498 758,488,000		[4] 498 758,488,000	38,875,492	797,363,990	224,871,297	1,382,746,054
1948–49	[5] 626,459,000	52,000,000	574,459,000	50,942,716	625,401,716	283,051,872	1,725,095,898
1949–50	[6] 687,000,000	156,167,278	582,832,724	62,201,104	645,033,828	[8] 306,646,277	2,063,483,449
1950–51	[9] 471,004,924	[9] 19,181,151	607,991,049	70,167,150	678,158,199	[8] 322,380,022	2,419,261,626
1951–52 [7]	773,000,000	19,181,151	773,000,000	78,500,000	851,500,000	[8] 400,327,626	2,870,433,989
1952–53 [7]	723,000,000	19,181,151	723,000,000	90,000,000	813,000,000	[8] 447,907,000	3,235,526,989
Cumulative through 1953	6,055,016,422	19,181,151	6,035,835,271	477,181,588	6,513,016,859	3,277,489,859	3,235,526,989

[1] Total amounts certified to the Secretary of the Treasury for payment, less cancellations and repayments.
[3] Excludes $9,000,000 transferred in October 1940 for collection of data on service and compensation of railroad workers prior to 1937.
[4] Reflects return of unexpended balance of prior service fund.
[5] Includes $61,889,000 of 1950 appropriation available in 1949, less $73,416,000 of 1949 appropriation made available in 1948.
[6] Less $61,889,000 of 1950 appropriation made available in 1949.
[7] All amounts estimated.
[8] Includes net amounts transferred for payment of administrative expenses.
[9] Adjusted to reflect rescission of $19,827,800.

SCHEDULE FOR COMPLETING ADJUSTMENT WORK

Mr. PUSACK. As I started to say, the Board's staff, at January 7, 1952, was 2,142. Now, in October, when the force was 1,999, we had 999 people engaged in retirement activities and at January 7 we had 1,314 people engaged in retirement activities. In addition to that 1,314 there were approximately 800 people working a 6-day week and certain individuals working intermittent overtime and nights.

Mr. DENTON. Can you give us any idea how long it is going to take you to make this recomputation?

Mr. PUSACK. We have scheduled the completion of this adjustment work by June 30, 1952.

Mr. MCKENNA. That is the one-time operation.

Mr. DENTON. That is a half-year. Well, now, these extra employees that you have, of course, will be temporary employees.

Mr. PUSACK. That is correct, sir. Not all of them, because bear in mind that the things that Mr. McKenna spoke of as being difficult in recomputation apply with equal force to the current claims that are being received. It takes longer to adjudicate them.

Mr. DENTON. You had to compute them under the old formula anyhow.

Mr. PUSACK. Yes; but I would say that the computation difficulty on an average is pretty close to double under the new set up.

Mr. MCKENNA. Previously we had to compute them under the railroad retirement. Now we have got to compute them under the Railroad Retirement Act and the Social Security Act, in addition to applying these certain other provisions.

In the 80,000 spouses operations we are getting on the one-time operation we found between 30 and 40 percent of the women have had employment under the social-security system. I think I can best illustrate the number of men that will have had employment under the social security by saying that our total wage record covers approximately 9 million people as compared with an industry that employs, including turn-over, something less than 2 million people a year.

POSSIBLE REDUCTION IN PERSONNEL AFTER 1952

Mr. DENTON. It seems to me that when you get through with this computation, there should be a substantial reduction in personnel.

Mr. MCKENNA. There will be when we get finished with the one-time job.

Mr. PUSACK. In other words, going into 1953 we say we are going to spend $500,000 less than we are going to spend in 1952. On the basis of an average salary of around $3,500, that would amount to about 170 jobs.

Mr. DENTON. When do you expect to have the computation done?

Mr. PUSACK. June 30, 1952.

Mr. DENTON. That will be this fiscal year.

Mr. PUSACK. That is correct.

Mr. DENTON. Why do you need an increased number of employees for next year?

Mr. PUSACK. Because we have 110,000 claims to adjudicate in 1953, all of them under the more difficult work basis.

Mr. DENTON. But you are asking here for some 70 more employees for next year than you had for this year when you made this computation.

Mr. MCKENNA. The reason for that—we are asking for 70 more permanents. Now, we are making this recomputation with overtime, the complete curtailment of other operations in the Board that must be resumed at some time so that we can throw employees into this work. We practically stripped our employment service operation there at headquarters. That is not reflected in these figures here. These people are detailed to the work.

Mr. DENTON. How much is your personnel for next year under this year assuming that you get this supplemental appropriation of $1,600,000?

Mr. MCKENNA. You had those figures a little while ago, didn't you, George?

Mr. PUSACK. Yes. Page 21, table 5, shows a comparison of the man-year use as applied to the railroad retirement program, which shows 1,216.4 man-years in 1953 as opposed to 1,385.7 man-years in 1952.

(Summary data submitted at request of committee.)

The 1953 appropriation request is $465,259 in excess of the 1952 appropriation plus estimated supplementals after taking out the 1952 amounts requested for nonrecurring items, computed as follows:

	Amount	Man-years
1952 appropriation	$4,845,808	1,015.7
Supplemental for pay costs	368,000	
Supplemental for work under amendments	1,600,000	370.0
Total	6,813,808	1,385.7
Less nonrecurring items in supplemental	972,067	244.4
1952 adjusted amount	5,841,741	1,141.3
Request for 1953	6,307,000	1,216.4
Differences	465,259	75.1

As indicated by table 9, which follows, the 1953 increase which is divided between personal services, $378,564, and miscellaneous expenses, $86,695, is attributable almost entirely to increased workloads caused by the amendments to the Railroad Retirement Act. Estimated productivity per man-year in each measurable activity was greater in 1953 than in 1952 as adjusted. The principal increases in workloads by activities are explained as follows:

1. The increase in compensation items to be processed under maintenance of accounts of employee earnings is due to greater railroad employment as defense production hits its peak in 1953.

2. The increase of 8,000 in claims to be processed and certified for payment is caused by several factors.

(*a*) Due to the fact that the amendments will be in effect during 12 months of 1953 as compared with 8 months of 1952, there will be a net increase of 2,250 claims for spouses benefits.

(*b*) The progression of the retirement system toward maturity plus the added incentives of liberalized retirement benefits and spouses benefits introduced by the amendments will account for an increase of 4,100 in retirement applications and an increase of 2,500 in inactive claims reclassified to active status.

(*c*) The greater period during which the amendments will be effective during 1953 will cause an increase of 2,350 cases to be reopened under the policing program because of changes in eligibility status.

(*d*) Offsetting the above increases in part will be an increase of 3,500 cases of individuals with less than 10 years of railroad service to be transferred to the Social Security Administration.

3. The increase in total in-force payments to be handled in the monthly recertification of awarded claims is attributable principally to handling a basic payment file which was greatly expanded by the addition of spouses benefits and which is increasing in size from month to month. An element of increased cost in this activity is the increased policing program required by the amendments to develop changes in eligibility status.

4. Previous experience has shown that when benefit provisions of the act are amended, a substantial increase in appeals and hearings results.

5. The increase in actuarial services is to provide for the continuation during a full year of the studies which will be in progress for only part of 1952, in accordance with amended section 5 (k) of the act. This amendment requires that studies be made to determine the adjustment that would be required between the OASI Trust Fund and the railroad retirement account to place the former in the same position in which it would have been if service as an "employee" under the Railroad Retirement Act from January 1, 1937, were "employment" under the Social Security Act from that date.

The increases aggregating 7 percent in miscellaneous expenses under each activity were consistent with the comparative changes in workloads.

Statement of requirements for recurring work, fiscal years 1952 and 1953

Activity	Basic work measurement	Volume of work units		Units per man-year		Total man-years		Unit cost		Total cost	
		Adjusted 1952	Estimate 1953	Adjusted 1952	Estimate 1953	Adjusted 1952	Estimate 1953	Adjusted 1952	Estimate 1953	Adjusted 1952	Estimate 1953
1. Maintenance of accounts of employee earnings.	Compensation items [1]	6,244,000	6,594,000	42.7	43.3	146.4	152.4	$110.87	$110.70	$692,277	$729,929
2. Processing and certification for payment of initial claims.	Total receipts	107,000	115,000	143.2	144.5	747.4	796.0	33.48	33.79	3,582,626	3,885,577
3. Monthly recertification of awarded claims.	Total in-force payments [1]	5,700,000	6,396,000	56.0	57.1	101.8	112.0	138.78	135.78	790,748	868,457
4. Hearings and appeals	Appeals dispositions	350	700	43.8	56.9	8.0	12.3	137.65	92.65	48,178	64,855
5. Actuarial services	Not measurable					28.9	34.2			139,908	161,404
6. General administration	do					108.8	109.5			588,004	596,778
Grand total						1,141.3	1,216.4			5,841,741	6,307,000

[1] Volume expressed in items; units per man-year expressed as thousands of units; unit cost is cost per thousand units.

Mr. DENTON. Is there anything more that any of you men want to say?

Mr. HARPER. I would just like to emphasize the greater difficulty in adjudicating claims. When you get over this hump, this backlog load that we have now, the increased effort that will have to be expended in adjudicating claims is going to be huge. We have social security in our bill now which means we must not only compute a man's annuity under the Railroad Retirement Act, but we must compute it again under the Social Security Act so as to give him the benefit of not less than what it would have been under social security.

POSSIBLE DUPLICATION OF SOME OF SOCIAL-SECURITY WORK

Mr. DENTON. Cannot social security give you formulas on that?

Mr. MCKENNA. They have the formulas, and if the individual is receiving benefits, initially we don't have too much trouble because they will give us the benefit rate.

Mr. DENTON. It seems to me you have an overlapping there.

Mr. MCKENNA. If they have already figured it, we don't have to. They will furnish us with the amount of benefit. But in the case of the man potentially entitled and who continues employment under social security, they will give us the wages and we will have to compute it. They may not have to compute it until the man comes in and applies for his social-security benefit, and at that time he may have additional wages.

The only time we would both reach the same answer would be where the man might go and apply to Social Security immediately after we have made the wage request on social security and made the computation. If he goes in later, they will have to include additional quarters of coverage and they will come up with a different answer than we found at the time we awarded the benefit, which means at that time we will have to go back and adjust to the new benefit rate that they have determined.

I might say that because of the pressure of these other items that we feel need immediate payment, we have not gone too much into the policing angle, and Mr. Pusack has not mentioned it here, and that is the question with respect to the individual that takes his benefit from us under the old service provision and we apply the adjustment based on his potential eligibility. Now, we have a problem there from year to year recomputing that adjustment until the man actually goes in and say to the Social Security people "I am not going to work any more. Give me my benefit." Then we know what the final amount is that Social Security has got to pay, that it is going to pay from there on out, and we know what the man's permanent amount is going to be on the railroad retirement.

Mr. DENTON. Why compute it every year?

Mr. MCKENNA. Because it will increase. Our law says we must adjust for what the man is entitled to under social security.

Mr. DENTON. You mean that he is drawing railroad retirement pay and working too?

Mr. MCKENNA. That is right. We have no work penalty provisions applied to social-security employment.

Mr. DENTON. Does anybody else have anything to say?

Mr. PUSACK. I might add just this much—that with respect to the decrease from 1952 to 1953, it is sufficient to result in better productivity, claim for claim, operation for operation, and item for item in 1953 than in 1952 on the revised basis. As Mr. Rudisin remarked, it is even better than the 1951 actual results were. So you can see that we have not inflated our requirements for 1953. In fact, based on some of our experience and some of the operations that we are dealing with here, like the application of the social security minimum, and even the adjudication of spouses benefits, we are not getting the results we anticipated by about 40 percent. Now, maybe that will improve in the future, but it might be that our productivity estimates for 1953 in those areas are too low.

Mr. DENTON. Does anybody else have anything to say?

Mr. SQUIRE. We have every incentive, Mr. Congressman, because it is very clear to us that any dollar that we waste as administrative expenses means that much less that is going to be available in the future for the payment of benefits to railroad employees who are retired and their survivors.

Mr. DENTON. Thank you, gentlemen.

THURSDAY, JANUARY 24, 1952.

FEDERAL MEDIATION AND CONCILIATION SERVICE

WITNESSES

CYRUS S. CHING, DIRECTOR
J. W. GREENWOOD, JR., ASSOCIATE DIRECTOR
L. E. EADY, DIRECTOR OF ADMINISTRATIVE MANAGEMENT
MRS. MAXINE HARRISON, BUDGET OFFICER

SALARIES AND EXPENSES

Amounts available for obligation

	1951 actual	1952 estimate	1953 estimate
Appropriation or estimate	$2,949,700	$2,911,913	$3,579,000
Proposed supplemental due to pay increases		214,500	
Total available for obligation	2,949,700	3,126,413	3,579,000
Unobligated balance, estimated savings	−182,247		
Obligations incurred	2,767,453	3,126,413	3,579,000

Obligations by activities

Description	1951 actual	1952 estimate	1953 estimate
1. Mediation and conciliation of labor disputes	$2,595,355	$2,937,173	$3,369,935
2. Administration	172,098	189,240	209,065
Obligations incurred	2,767,453	3,126,413	3,579,000

Obligations by objects

Object classification	1951 actual	1952 estimate	1953 estimate
Total number of permanent positions	367	394	432
Full-time equivalent of all other positions		1	2
Average number of all employees	340	366	415
Average salaries and grades:			
General schedule grades:			
Average salary	$6,539	$7,160	$7,159
Average grade	GS-10.4	GS-10.5	GS-10.4
Crafts, protective, and custodial grades:			
Average salary	$2,758	$2,752	$2,832
Average grade	CPC-3.0	CPC-3.0	CPC-3.0
01 Personal services:			
Permanent positions	$2,263,001	$2,627,766	$2,979,795
Part-time and temporary positions	2,550	7,500	21,570
Regular pay in excess of 52-week base		10,300	11,500
Payment above basic rates		500	1,000
Total personal services	2,265,551	2,646,066	3,013,865
02 Travel	311,075	350,790	404,210
03 Transportation of things	7,173	7,000	8,750
04 Communication services	77,103	80,500	87,500
05 Rents and utility services	52,039	900	900
06 Printing and reproduction	6,895	6,000	6,000
07 Other contractual services	6,437	5,500	6,910
Services performed by other agencies	9,019	9,307	13,115
08 Supplies and materials	13,321	13,350	17,250
09 Equipment	18,178	5,000	14,500
15 Taxes and assessments	662	2,000	6,000
Obligations incurred	2,767,453	3,126,413	3,579,000

Analysis of expenditures

	1951 actual	1952 estimate	1953 estimate
Unliquidated obligations, start of year	$148,808	$219,194	$111,607
Obligations incurred during the year	2,767,453	3,126,413	3,579,000
	2,916,261	3,345,607	3,690,607
Deduct:			
Unliquidated obligations, end of year	219,194	111,607	139,607
Adjustment in obligations of prior years	35,196		
Obligated balance carried to certified claims account	197		
Total expenditures	2,661,674	3,234,000	3,551,000
Expenditures are distributed as follows:			
Out of current authorizations	2,549,392	2,806,000	3,440,000
Out of prior authorizations	112,282	218,300	106,200
Out of anticipated 1952 supplemental for pay increases		209,700	4,800

Boards of Inquiry

Amounts available for obligation

	1951 actual	1952 estimate	1953 estimate
Appropriation or estimate	$50,000	$47,500	$47,500
Unobligated balance, estimated savings	−50,000		
Obligations incurred		47,500	47,500

Obligations by activities

Investigations of labor disputes which imperil the national health and safety:

1952	$47,500
1953	47,500

Obligations by objects

Object classification	1951 actual	1952 estimate	1953 estimate
Average number of all employees		2	2
01 Personal services: Part-time and temporary positions		$22,500	$22,500
02 Travel		20,000	20,000
04 Communication services		2,000	2,000
06 Printing and reproduction		500	500
07 Other contractual services		2,000	2,000
08 Supplies and materials		500	500
Obligations incurred		47,500	47,500

Analysis of expenditures

	1951 actual	1952 estimate	1953 estimate
Unliquidated obligations, start of year	$1,710		$7,500
Obligations incurred during the year		$47,500	47,500
	1,710	47,500	55,000
Deduct:			
Unliquidated obligations, end of year		7,500	10,000
Adjustment in obligations of prior years	1,453		
Total expenditures	257	40,000	45,000
Expenditures are distributed as follows:			
Out of current authorizations		40,000	37,500
Out of prior authorizations	257		7,500

Mr. FOGARTY. The committee will come to order. The committee has before it this morning the Federal Mediation and Conciliation Service. Mr. Ching, do you have a statement for the committee?

GENERAL STATEMENT

Mr. CHING. Mr. Chairman, this Service that we represent has two functions—one, the responsibility for settling labor disputes; and, two, the responsibility for averting labor disputes by attempting to bring about better labor relations.

We cover all of the 48 States, the Hawaiian Islands, Alaska, and Puerto Rico.

INCREASED WORKLOAD AND ADDITIONAL PERSONNEL REQUIREMENTS

This national emergency has given us a lot more in the way of concern than we would normally have. I have had the feeling for a long time that our force was rather low for the job that was outlined.

Comparing the present defense emergency with World War II, we find this picture—that then we had approximately 300 commissioners of conciliation attached to this service, and in addition to that there was a conciliation service set up, with large numbers of people, probably running to 700 or 800, connected with the United States Maritime Commission, Navy, War Labor Board, War Production Board, Army,

Air Force—practically all the procurement agencies had their own set-up for labor disputes.

We had several meetings and coordinated our activities with the Defense Department and the Wage Stabilization Board so that today we have the understanding that the Mediation Service is the only agency in the Federal Government that will enter into this mediation of labor disputes. That is not because we desire to have a monopoly in the field at all, but to be effective you must have only one agency representing the Government. Otherwise we have two conflicting interests. They will play one against another if two appear in the field. That was the experience during the war. The set-up in all these other agencies at that time was not only extremely expensive, but also it tended to prolong rather than settle disputes.

For that reason we are asking for an increase in the number of our people. We feel that, if we are going to take this responsibility and carry through on it, it is necessary for us to have a few more people.

EFFECT OF LENGTHY LABOR DISPUTES ON WORKLOAD

There is another factor in connection with our work, too, and that is the length of time that we take today in a dispute. Disputes are more difficult to settle. They take a longer time and more people are required. In the copper situation that we had last fall we had 23 of our commissioners in the field assigned on that case. We had a panel in Washington, together with the activities of the top staff of the organization on that one case. We had one man for about 9 or 10 weeks and a panel of three other commissioners at various times on one case up in Rhode Island.

So it not only takes more time to settle the cases, but there are other factors that enter into it. The national unions will make a uniform demand on an industry, such as the steel or copper or some of the aluminum, and the dealing is done at the plant level, so we have to cover the plants. It is not at all unusual, as in the case of copper, for example, to have 20 or 30 men at one time in one industry. That curtails our force.

There is another thing that must be remembered in connection with our activities. The taxpayer does not get so much return on these big cases. Of course, when we get a big case settled, such as a strike in steel or in motors or rubber, it is terribly important because some of those things would cost the taxpayers probably more than our total appropriation if the strike was on for any length of time. But that is not the place where I think we do the most effective work. I think the place that our service does the most effective work is out in our regions, the smaller cases, the smaller unions.

Although the large cases are spectacular and it is terribly necessary to get them out of the way, the backbone of our service is out in the field in settling these smaller disputes involving 2,000, 3,000 or 5,000 people and many of them carrying on important defense activities.

Now, I think I will stop at this point with my statement and let these other gentlemen answer any questions as to the figures here.

NUMBER OF NEW POSITIONS

Mr. FOGARTY. Mr. Ching, how many positions did you have at the end of fiscal 1951?

Mr. EADY. I have a man-year figure.

Mr. FOGARTY. These are all man-year figures in the charts that we have before us?

Mr. GREENWOOD. These are position figures that are on the charts.

Mr. EADY. The question was for 1951.

Mr. FOGARTY. Give it to us as near as you can in terms of positions.

Mr. EADY. I will have to supply position figures. These are utilization of man-years—340 man-years, total staff for 1951.

Mr. FOGARTY. That is what you had in 1951. And then your 1952 estimate is 394 positions. How many have you actually got on the rolls at the present time?

Mr. EADY. Three hundred and sixty-three.

Mr. FOGARTY. So you have about 30 positions unfilled as of today.

Mr. EADY. Anticipated appointments for the balance of the year.

Mr. FOGARTY. And you are asking for a total of 432 in 1953, is that correct?

Mr. EADY. Correct; yes, sir.

Mr. FOGARTY. Which is an actual increase of about 70 positions, is it not, over what you have on the rolls at the present time.

Mr. GREENWOOD. About that.

TYPES OF NEW POSITIONS REQUESTED

Mr. FOGARTY. Now, what is the breakdown of those new positions?

Mr. GREENWOOD. They are practically all commissioners.

Mr. EADY. The majority are commissioner positions.

Mr. FOGARTY. Conciliators, you mean?

Mr. GREENWOOD. Conciliators and mediators. They will all be in the field.

Mr. FOGARTY. Give us a breakdown of those new positions; how many mediators and how many clerks, stenographers, and so forth?

Mr. EADY. The anticipated increase for next year is 38 positions net. There will be 25 additional conciliator positions, 14 additional clerical positions, and one less position in the national office—a net increase of 38, total.

Mr. FOGARTY. How many do you have in the national office at the present time?

Mr. EADY. 57 positions.

EXPLANATION OF BUDGET ESTIMATES

Mr. FOGARTY. In 1948 you had $2,170,000 and your request for 1953 is $3,579,000. That is about $1,500,000 more than you had available in 1948. Is that mainly because of the emergency that we are in at the present time or is it because of new methods of conciliation or stressing certain points in the prevention of strikes or what?

Mr. CHING. It is a variety of factors.

Mr. GREENWOOD. Excuse me. One important factor is that the appropriation for 1948 was for a 10-month period. For fiscal year 1948 it was for a 10-month period only. You see, the service was not organized until August 23 of 1947 and that means 2 months of fiscal

year 1948 had already passed. So that figure must be upped by 2 months of peak activity in July and August.

Mr. CHING. The other point that I wanted to emphasize again was that we are putting more and more emphasis on this matter of prevention of strikes, avoiding a strike, rather than waiting until they reach the dispute stage. That takes more time. Then there is the fact that the parties in the disputes are more sophisticated, the issues are more complicated, and when we get into a dispute of any consequence today we know that it is going to take longer and take more manpower than it did before.

I suppose it is just one of these developments that take place, but that is what the fact is.

Mr. GREENWOOD. A sizable proportion of that increase, of course, is due to salary increases under the Classification Act and other pay increase acts.

COST OF PAY ACT

Mr. FOGARTY. You have available in 1952 $2,911,000. How much do you anticipate will be the additional cost because of the pay act increase for 1952?

Mr. GREENWOOD. $214,500.

Mr. FOGARTY. How much of that do you expect to absorb?

Mr. GREENWOOD. Of the pay increases?

Mr. FOGARTY. Yes.

Mr. GREENWOOD. We have not proposed absorbing any because we have requested an increase in the number of positions for the service for fiscal year 1952 and any absorbing of the pay increase would necessitate a cutting down of the number of positions we have requested.

Mr. FOGARTY. In other words, in order to take care of that pay-act increase, you have not filled positions that were authorized in 1952.

Mr. GREENWOOD. We have simply delayed filling the positions.

ANTICIPATED SUPPLEMENTAL APPROPRIATIONS

Mr. FOGARTY. You are not anticipating any supplement in 1952?

Mr. GREENWOOD. We are anticipating a supplement of $214,500. But we have still delayed our employment of new commissioners in this fiscal year. As a matter of fact, the present plan which we have had approved by the Budget Bureau calls for filling a number of those positions not until June, the last month of the fiscal year, to permit us to get by with even this supplement.

Mr. FOGARTY. Well, if you do not get the supplemental, you just will not be able to fill those positions, will you?

Mr. GREENWOOD. Well, that will have very little effect on filling the positions because they will be filled for just a few weeks or days at the end of the fiscal year. If we did not get the supplemental, it would mean a terrific reduction in force to absorb that at the last moment. We have been going on the assumption that there definitely will be a supplemental.

Mr. FOGARTY. But you have about 30 positions unfilled at the present time.

Mr. GREENWOOD. Thirty below the ceiling proposed. The reason they are not filled is because the Budget Bureau, in approving the

NUMBER OF NEW POSITIONS

Mr. FOGARTY. Mr. Ching, how many positions did you have at the end of fiscal 1951?

Mr. EADY. I have a man-year figure.

Mr. FOGARTY. These are all man-year figures in the charts that we have before us?

Mr. GREENWOOD. These are position figures that are on the charts.

Mr. EADY. The question was for 1951.

Mr. FOGARTY. Give it to us as near as you can in terms of positions.

Mr. EADY. I will have to supply position figures. These are utilization of man-years—340 man-years, total staff for 1951.

Mr. FOGARTY. That is what you had in 1951. And then your 1952 estimate is 394 positions. How many have you actually got on the rolls at the present time?

Mr. EADY. Three hundred and sixty-three.

Mr. FOGARTY. So you have about 30 positions unfilled as of today.

Mr. EADY. Anticipated appointments for the balance of the year.

Mr. FOGARTY. And you are asking for a total of 432 in 1953, is that correct?

Mr. EADY. Correct; yes, sir.

Mr. FOGARTY. Which is an actual increase of about 70 positions, is it not, over what you have on the rolls at the present time.

Mr. GREENWOOD. About that.

TYPES OF NEW POSITIONS REQUESTED

Mr. FOGARTY. Now, what is the breakdown of those new positions?

Mr. GREENWOOD. They are practically all commissioners.

Mr. EADY. The majority are commissioner positions.

Mr. FOGARTY. Conciliators, you mean?

Mr. GREENWOOD. Conciliators and mediators. They will all be in the field.

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Mr. FOGARTY. But you have about 30 positions unfilled at the present time.

Mr. GREENWOOD. Thirty below the ceiling proposed. The reason they are not filled is because the Budget Bureau, in approving the

supplemental, has said "You have got to delay your hiring program. You have got to postpone the hiring until June." So in effect we are absorbing some of the pay increase, but we are still asking for a supplemental.

Mr. FOGARTY. You are still asking for $214,500.

Mr. GREENWOOD. If we did not get the supplemental, it would mean we would have to now, or a month or two ago, have effected some reductions in force.

Mr. FOGARTY. Is that $214,500 the total amount of the pay act increase?

Mr. GREENWOOD. No. That is just the amount that has been approved.

Mr. FOGARTY. What are the actual costs?

Mr. GREENWOOD. We will have to supply that for the record.

(The information referred to is as follows:)

In addition to the amount required to meet the cost of pay act increases, the Service had proposed a supplemental appropriation to permit the appointment of a few additional Commissioners during the fourth quarter of the current year. The amounts of pay act increases and supplemental appropriation were considered simultaneously by the Budget Bureau. It was agreed that the Service would not be required to absorb any portion of the pay act increase, but neither would approval be given to any portion of the $51,850, supplemental appropriation proposed.

BOARDS OF INQUIRY ESTIMATES

Mr. FOGARTY. Now, for your boards of inquiry you are asking for the same amount—$47,500.

Mr. GREENWOOD. That is right.

Mr. FOGARTY. How much has been expended in 1952?

Mr. GREENWOOD. None.

Mr. CHING. Yes—we had one in the copper. That is the only case.

Mr. EADY. About $2,200 of that has been expended.

Mr. FOGARTY. You still have 4 or 5 months to go this year and if that is not expended, it just reverts back to the Treasury.

Mr. GREENWOOD. That is correct. It is not available for salaries and expenses of the service—only for boards appointed by the President.

EFFECT OF REDUCTION IN PER DIEM FEES FOR TEMPORARY ARBITRATORS

Mr. FOGARTY. A year ago you hired temporary arbitrators or conciliators. They were paid at the rate of $75 a day. As you know, that was cut on the floor of the House when this bill was up for consideration from $75 to $50 a day. Will you tell us what your experience has been with that cut?

Mr. CHING. We have not had too much experience with setting up fact-finding boards. We did set up a special mediation board in the textile industry in the South.

I think we want to keep in mind in connection with the setting up of a fact-finding board that it is better not to have anything than to have the wrong people on it.

Many of the Government agencies pay substantially larger per diem fees than we do, such as the Railroad Mediation Board and the Railroad Adjustment Board. I think that runs as high as $100.

Mr. FOGARTY. What runs as high as $100?

Mr. CHING. The Railroad Mediation and Railroad Adjustment Board. In many instances we use the same people, and if we start to draw on people that get $100 from one Government agency and $50 from another, it makes it more difficult. The $50 a day does not take care of the type of people that we expect to have or should have on these boards. I feel that $75 a day is reasonable and is almost the minimum amount that you can expect to get good people for.

Mr. GREENWOOD. It is about half of what private parties pay arbitrators these days. Most arbitrators today receive from the parties directly at least $100, $125, or $150 per diem for regular arbitration work.

AMOUNT OF REQUEST TO BUDGET BUREAU

Mr. FOGARTY. What did you ask the Bureau of the Budget for this year?

Mr. GREENWOOD. On that point?

Mr. FOGARTY. Salaries and expenses.

Mr. GREENWOOD. For salaries and expenses for the fiscal year 1953—we will have to supply that for the record.

(The information referred to reads as follows:)

Total amount of request presented to the Bureau of the Budget is $3,918,800.

Mr. FOGARTY. Mr. Denton?

Mr. DENTON. No questions.

Mr. FOGARTY. Mr. Busbey?

QUESTION OF ARBITRATORS AVAILABLE WITHOUT COMPENSATION

Mr. BUSBEY. Regarding the pay of these arbitrators, Mr. Greenwood, is it not true that in many labor disputes around the country you are able to get arbitrators to work for nothing or without compensation as a civic duty?

Mr. GREENWOOD. I think it is true in some cases, but normally arbitrators are paid by the parties and the standard fee today is $100 to $150 a day. There are, however, cases where the parties are unable to stand the expense—small unions or small companies—where public-spirited arbitrators will proffer their services without fee.

METHOD USED TO ACQUIRE ADDITIONAL CONCILIATORS

Mr. BUSBEY. As I understand it, the request for the major portion of these new positions you are requesting for 1953 will be used in obtaining additional conciliators.

Mr. GREENWOOD. That is correct.

Mr. BUSBEY. What method do you use, Mr. Ching, in selecting and obtaining additional conciliators in such a case?

Mr. CHING. We have a number of people who apply to the Service. In many instances our regional directors or our regional commissioners know of people that they have observed in action and they recommend them. Then we put them through a very severe screening and processing. We have a lot of interviews with them before we take them on. Then we put them through a course of training—that is, training in the whole operation of the Service and training out in the field with commissioners.

We have no one method of selecting people. As I say, some people who know our commissioners and know about the Service would like to get in that field and they apply. Sometimes our commissioners request people to apply if they think they will be interested because they have observed them in negotiations and bargaining on the other side of the table.

Mr. GREENWOOD. We do have a set of qualification standards requiring a minimum of 6 years of experience in the field of labor-management relations to qualify for the position. The entrance grade of a conciliator is grade GS–11. That experience may be secured on either side, management or labor, or in a professional capacity, such as teacher, consultant, attorney, or in a Government position. But it must be in the field of labor-management relations. It must be progressively responsible experience, experience which would qualify someone to sit at the bargaining table and conduct conferences with the parties.

PERCENTAGE OF CONCILIATION OBTAINED FROM RANKS OF LABOR

Mr. BUSBEY. Speaking generally of the conciliators you have on the payroll at the present time, from what field are most of them selected? Are they from labor, management, or some other field?

Mr. GREENWOOD. During the past month we made an analysis of our payroll and discovered, I think, that about 35 to 40 percent came from the ranks of labor, a slightly larger percentage from management, and the balance from professional fields or government.

Mr. BUSBEY. When you say a man comes from the field of management, what criterion do you use to establish that he is from the field of management?

Mr. CHING. We have men who have been engaged in so-called labor-relations work. As a matter of fact, I was a management man for 35 years, devoting practically all of my time to the field of labor relations. So you have men on both sides who have devoted a lot of time endeavoring to promote better relationships and you find those men in management and organized labor as well as the professions.

Mr. GREENWOOD. By way of example, we have a group of commissioners just coming on the payroll now. One of those men, has resigned from a position as general manager of a plant in Wilmington, Del., where he was responsible for the conduct of collective bargaining and labor-management relations on the management side. That is typical of the type of men that come from management. Usually they have been conducting or responsible for some portion of the labor-management relations on the management side.

NUMBER OF CONCILIATORS AND COMMISSIONERS

Mr. BUSBEY. How many commissioners and how many conciliators do you have in your department at the present time?

Mr. GREENWOOD. There are about 225 on the payroll at the present time, including those who are in training.

Mr. BUSBEY. Mr. Chairman, would I be out of order in suggesting that Mr. Ching supply for the record the names of these people they have made a survey on and designate in that memorandum those who have come from management, from labor, and from outside sources?

Mr. FOGARTY. That would not be too much of a job, would it since you have just made the survey?

Mr. GREENWOOD. We have made the survey. We do not have a prepared list. We can submit for the record, if you desire it, a list of the 225 commissioners with an indication of the type of background or give you a sample study, whichever you prefer.

Mr. FOGARTY. All right. Put the entire list in.

Mr. GREENWOOD. You want the names and the type of experience, whether it is from management, labor or some other field.

Mr. BUSBEY. Yes—just to see how that balances out. If it does and I have no reason not to accept your word at full face value, I would say it would be a very good balance. I would like to look it over at my leisure and satisfy myself that it is so balanced.

Mr. GREENWOOD. We will be very glad to supply that.

(The information referred to reads as follows:)

The qualifying experience of the conciliators employed by the Service may be classified into four general categories; i. e., labor, management, professional and government.

The conciliators who are indicated as having a labor background are those who have experience acquired as an officer of a labor union representing the members in all relations with employers.

The conciliators who are indicated as having a management background are those whose experience in labor-management relations was obtained while serving in various managerial positions, the duties of which embraced negotiations, dealings with employee committees and labor unions.

The conciliators who are indicated as having a professional background are those with legal training and experience, those who have served as industrial relations consultants or engineers, arbitrators, etc.

The conciliators who are indicated as having a government background are those who acquired experience in other bureaus of the Federal Government or mediation agencies of the States or municipalities.

At the time of appointment to the Service, the conciliators currently on the rolls were employed in the various fields as follows:

Type of activity	Number	Percent	Type of activity	Number	Percent
Labor	77	34	Government	77	34
Management	39	18			
Professional	32	14	Total	225	100

It should be noted that of the 225 conciliators currently employed, a total of 70, or 31 percent, have experience in more than one type of activity.

Those with such experience are as follows:

Type of activity	Number	Percent	Type of activity	Number	Percent
Labor and management	11	5	Management and government	11	5
Labor and professional	5	2			
Labor and government	31	14	Professional and government	7	3
Management and professional	5	2	Total	70	31

In accordance with your request, there is attached a schedule that lists the name of each Commissioner and shows the background experience of each by the categories of labor, management, professional and government. Parentheses marks ( ) are used to identify the various fields in which the commissioners were employed at the time of appointment to the service.

95263—52——5

Commissioners	Background experience			
	Labor	Management	Professional	Government (State and Federal)
Adams, A. L.			(X)	
Allen, J. S.	X			(X)
Alsip, C. H.	(X)			
Andress, J. L., Jr.	(X)			
Ashe, F. J.	(X)	X		
Atkins, H. H.	(X)			
Baker, H. G., Jr.			(X)	
Beck, F.				(X)
Behymer, J. H.		(X)		
Bell, G. H.	(X)			
Bennett, G.			X	(X)
Bentley, J. G.		X		(X)
Berman, R. A.				(X)
Brewer, Seth P.	X	(X)		
Brinton, C. R.	(X)			
Burke, J. A.			(X)	
Burke, W. F.	(X)			
Burns, R. E.				(X)
Burton, R. L.	X			(X)
Byars, W. G.	X			(X)
Campbell, H. J.	X			(X)
Cann, W. F.		X		(X)
Carlgren, C. R.				(X)
Carroll, J. J.	(X)			
Caton, H. M.	(X)			
Cleland, T. J.				(X)
Clevenger, C. S.				(X)
Conn, H. R.		X		(X)
Conner, J. L.	(X)			X
Creighton, S. F.				(X)
Cullen, P. J.	X			(X)
Cushman, J. H.				(X)
Daly, J. T.			(X)	
Deal, C. W.	X	(X)		
Despins, J. A.	X			(X)
Donnahoo, R. W.	(X)			
Doud, G. L.				(X)
Dougherty, T. G.			X	(X)
Driver, C. W.		(X)	X	
Duncan, G. A.		(X)		X
Duncan, S. W.	(X)			
Eddy, S. C.	(X)	X		
Edwards, D.	X			(X)
Ehrlich, E. J.		(X)		
Emory, C. T.	(X)			
Fenton, J. L.				(X)
Ferguson, G. K.				(X)
Fillo, N. M.	(X)			
Finch, V. C.	X			(X)
Finn, T. M.	(X)			
Fleshman, G. C.	(X)			
Foley, W. M.		(X)		
Forman, B. J.		(X)		
Fox, C. M.	(X)	X		
Fuller, P. W.	(X)			
Gallagher, A. J.				(X)
Gantz, W. F.	(X)			
Gerard, Irwin			(X)	
Godman, D. G.		(X)		
Goodwin, O. E.		X		(X)
Gray, H.	X			(X)
Green, W. C.	(X)			
Griffith, H. A.	X			(X)
Haber, H. L.				(X)
Hale, H. R.				(X)
Hall, R. E.	X			(X)
Halligan, S. D.	X			(X)
Halloran, W. P.	X		(X)	
Harding, C. G.				(X)
Harper, R. O.	(X)			
Harris, F.			X	(X)
Hawley, C. C.	(X)			
Heafner, Y.			(X)	
Henry, J. M.			X	(X)
Hickerson, W. B.	(X)			
Hillebrand, G. L.				(X)
Hilliard, D. H.		(X)		
Hitchcock, E. F.				(X)
Hoch, A. W.	X			(X)

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	Labor	Management	Professional	Government (State and Federal)
Holden, J. A				
Holmes, J. P	(X)			
Hosie, W. G	(X)			
Hoskins, O. F	X		X	
Hubbard, J. O			(X)	
Hummert, A. J				(X)
Hunt, D. R		X	(X)	
Hunt, E. W	(X)			(X)
Ingles, A. C	(X)			
Jackson, E. S	(X)			
Jacobson, J. E		(X)	X	
Jeffrey, J. P			(X)	
Johnson, A. E		X		
Johnson, S. L	(X)			(X)
Jones, D. K				(X)
Kah, L. D				(X)
Kelley, J. E	(X)			
Kelly, J. S			(X)	
Kenaston, V. W	X			
Kenney, J. L	(X)			(X)
Kotin, L	(X)	X		
Kutz, C		(X)		
LaMotte, C. M	(X)			
LaValley, C. A	(X)			X
Lee, G. R	(X)			
Leigh, G. C				
Lewis, R	(X)		(X)	
Lintner, G. V				
Luchs, A. W			X	(X)
Luecke, J		(X)	X	(X)
McAghon, J				
McAlister, W. A		(X)		(X)
McClelland, B				
McConnell, T. B	(X)			(X)
McCutcheon, G. S	(X)			X
McDaniel, E. E	X	(X)		X
McGahan, G. B	X	(X)		
McHugh, M. J		(X)		
McNally, T. F			(X)	
McNamara, J			(X)	
Maher, F. L	(X)			
Mahoney, J. F		X	(X)	
Majure, R. M				(X)
Malcom, H. C			(X)	
Mandelbaum, J. R	(X)			X
Manno, P. J		X	(X)	
Marshman, B. M	(X)	X		
Martin, T. F		(X)		
Maxey, J. N		(X)		
Medoff, J	(X)			
Meyer, A. A	X	(X)		X
Mitchell, L. G	(X)			
Montoney, H. J	(X)			X
Moore, R. H	(X)			
Moran, J. A				X
Morton, T. B	X		(X)	
Moser, W. C	X		(X)	
Murphy, C. J				(X)
Murray, J. R		(X)	(X)	
Murray, W. G	(X)			
Myers, E. E				
O'Byrne, J. J	(X)			(X)
Oliver, J				
O'Reilly, J. J			(X)	
Paster, I				(X)
Patterson, R. C			(X)	X
Peek, C. C	(X)		X	(X)
Pennell, J. E	(X)			
Peterson, A. L	(X)			
Petz, S. J	(X)			
Pfau, J. A				
Phillips, E. L				(X)
Pickett, I. I		(X)		
Pierce, J. C	X		X	(X)
Pierson, A. H	(X)			(X)
Powell, W. W	(X)			
Pringle, E. F				X
Ralston, C. E	(X)	(X)		
Ray, C	(X)			
		(X)		

Commissioners	Background experience			
	Labor	Management	Professional	Government (State and Federal)
Ray, W. H.				(X)
Richards, C. R.	(X)			
Ricketts, D. A.	(X)			
Ricketts, P. R.		(X)		X
Ries, E. H.	(X)			
Ring, J. R.				(X)
Roberts, W. H.				(X)
Robertson, T. W.				(X)
Rockey, O.			(X)	
Roewer, G. E.				(X)
Rooney, J. A.		(X)		
Rose, W.	(X)	X		
Ruddy, E. J.	(X)			
Rush, A. S.	X			(X)
Rye, L. F.		(X)		
Schneider, A. W.	(X)			
Schuld, J. C.				(X)
Shaffer, R. B.	X			(X)
Sheehan, M. K.		(X)		
Sheiner, S. S.		(X)		
Sheridan, F. L.				(X)
Sherman, M. E.	(X)			
Simmons, E. C.	(X)			
Smith, B. C.			(X)	
Smith, H. W.			(X)	
Smith, L. R.				(X)
Spencer, S. M.				(X)
Springfield, S. G.	(X)			
Stainbrook, G. H.			(X)	
Stewart, E. D.			(X)	
Stone, L. A.			(X)	
Stuart, R.		(X)		
Sullivan, J. J.	(X)			
Swauger, M. E.		(X)		
Tanzman, D. S.				(X)
Thompson, A. M.		X		(X)
Thompson, C. W.	X			(X)
Tilton, C. L.			(X)	
Toner, W. B.	(X)			
Towers, L. C.				(X)
Truax, W. H.				(X)
Turner, C. R.	(X)			
Tutt, J. C.	(X)			
Vint, A. C.	(X)			X
Vincent, J. C.	X			(X)
Vokoun, H. C.			(X)	
Wagner, W. L.				(X)
Walker, E. A.	(X)			
Walker, G. V.	(X)			
Walsh, J. P.		(X)		
Ward, C. R.				(X)
Ward, E. F.		(X)		
Werkheiser, C. F.		(X)		
Wheeler, C. A.			X	(X)
White, W. C.				(X)
Whorton, W. M.	(X)		X	
Williams, C. H.		(X)		
Williams, R. R.				(X)
Wilson, J. W.			(X)	
Winchester, F. E.		(X)		
Windes, E. F.		(X)		X
Winning, H.		(X)		
Woomer, G. W.	X			(X)
Wright, J. C.			(X)	
Young, G. H.	(X)			
Young, U. S.		(X)		
Ziman, L.	(X)			
Total—225	104	53	45	93

STATUS OF LOYALTY INVESTIGATIONS

Mr. BUSBEY. Mr. Ching, has your agency completed the investigation of all its employees under the loyalty program as provided by Executive Order 9835?

Mr. CHING. We have some pending.

Mr. GREENWOOD. Wo do not, of course, conduct the investigation. That is done by the FBI. We consider the cases. Our agency loyalty board considers the cases as we receive reports from the FBI. We can supply for the record the exact number, but in general, all of the personnel who were on the payroll prior to about 1 year ago have been investigated and cleared with one or two exceptions; and with respect to those who have come on within the past year, reports are coming in currently on them and they are cleared as the reports are received.

Mr. BUSBEY. I would like to take up an individual case. I assume that you are more familiar with it than Mr. Ching, so maybe I should direct my questions to you, Mr. Greenwood.

Mr. GREENWOOD. That is perfectly all right.

Mr. BUSBEY. I am particularly interested in the question of the employment of persons by the United States Government wherein there is reasonable doubt as to that person's loyalty to our form of government. Therefore, the questions I propose to ask you have to do with one certain man in your agency.

This interest is not new on my part. I ask questions of this kind of other agencies.

Have you in your agency a man holding the position of regional director or district director or conciliator, or whatever title it may be, who was practically forced out of the American Federation of Labor because of his membership in the Communist Party?

Mr. GREENWOOD. Not to our knowledge.

Mr. BUSBEY. Well, you certainly would have knowledge of anything like that, would you not? You are in contact with your agency loyalty board.

Mr. GREENWOOD. I am chairman of the loyalty board for the agency. To the best of my knowledge, we have not received any reports from the FBI which would indicate that anyone of our conciliators or regional directors has had that type of experience—that is, being forced out of the American Federation of Labor because of Communist activity or affiliation.

Mr. BUSBEY. How long have you been acting as chairman of the agency loyalty board?

Mr. GREENWOOD. I have been chairman for about a year and a half and prior to that time I was a member of the board, since its inception.

Mr. BUSBEY. Would that be 1947?

Mr. GREENWOOD. Well, the board was established in 1948, I think, when the Executive order came out.

Mr. BUSBEY. If I recall correctly, the original Executive order came out March 21, 1947.

Mr. GREENWOOD. You may be correct. Of course, the agency was not established as an independent agency until August of 1947. The dates are a little fuzzy in my mind. I an not sure when we got around to establishing our board. It might have been late in 1947 or early 1948.

Mr. BUSBEY. According to your answer to my last question in regard to this particular individual, you would not have any knowledge of his separation from the American Federation of Labor and his almost immediate employment by your agency?

Mr. GREENWOOD. I cannot recall any such case. If you would like to furnish the name off the record, perhaps it would refresh my memory a little bit with respect to the details.

Mr. BUSBEY. I would just as soon keep the individual's name off the record, but if you do not recognize him by the time I have finished my interrogation, which I think you should be able to do, I shall be very happy to furnish you the name of the individual.

I am to understand, then, Mr. Greenwood, you do not have any knowledge whatever of an individual who, as I said, was dismissed from the American Federation of Labor because of his membership in the Communist Party and is now employed in your agency in one of these positions of conciliator or regional director or commissioner or at least a high position?

Mr. GREENWOOD. I do not recall anyone of that description at the moment.

Mr. BUSBEY. Was your agency ever informed by any witness or witnesses that such a person in the employment of your agency previously had membership in the Communist Party?

Mr. GREENWOOD. To the best of my knowledge and trusting my memory at this point, none of the official reports we have received have indicated that any member of our service was himself a member of the Communist Party.

Mr. BUSBEY. Now will you answer my question, please?

Mr. GREENWOOD. I'm sorry. Would you mind repeating it?

Mr. BUSBEY. The question is, Was your agency informed by a witness or witnesses that an employee in such a position as I outlined had formerly had membership in the Communist Party?

Mr. GREENWOOD. We have not had, as best I can recall at the moment, any witnesses at any of the hearings conducted by our board other than the individual employee himself, so the only testimony of witnesses we have received would be through FBI reports.

Mr. BUSBEY. I again refer you to my question and will you please answer my question? I am not talking about FBI reports. I am not talking about any hearings of the loyalty board of your agency. May I repeat the question. Was your agency informed by a witness or any witnesses as to an employee of your agency in one of these positions that I outlined—that he had former membership in the Communist Party?

Mr. GREENWOOD. The only knowledge I would have of witnesses would be those appearing before the agency board. How any other witness would appear, I do not know. So the only answer I can supply is what knowledge I have of the witnesses who might have appeared before the board, and there have been no witnesses before the board. Now, ordinarily we do not have witnesses appearing at any hearings of our agency. We do not have witnesses furnishing testimony in any other manner on such matters. So to the best of my knowledge I can say that no witness has ever furnished such information to our service.

Mr. BUSBEY. Let us approach it from another angle, then. Has anyone, to your knowledge, approached you or any member of your

board and been willing to testify as to the particular individual I am talking about as to his membership in the Communist Party?

Mr. GREENWOOD. No one has approached me with such an offer and to the best of my knowledge no one has approached any other member of the board, but I cannot answer entirely for the other members of the board.

Mr. BUSBEY. If you had in your employ a person in one of these positions that I think would be properly recognized as a high position, would you not be interested in finding out anything and everything you could from any source of information so you could check as to that individual's probable membership in the Communist Party?

Mr. GREENWOOD. Very definitely.

Mr. MCGRATH. You said in his employ. I did not quite get the import of that question.

Mr. BUSBEY. The employ of the agency. Well, regardless of whether you received any derogatory information from the FBI investigation, would you not be interested in having any individual come in before your loyalty board and under oath testify as to what he knew in regard to an employee's membership in the Communist Party?

Mr. GREENWOOD. I think we would; speaking for myself, I would.

Mr. BUSBEY. I was in hopes you might have identified the employee before now, because the next question I wanted to ask you, Mr. Greenwood, was whether or not this particular employee at any time denied before your loyalty board his membership in the Communist Party. I think I will have to reframe the question. Have you had any employee in such a position as I have designated before the loyalty board where you have had to interrogate him as to his membership in the Communist Party and he denied it?

Mr. GREENWOOD. In each case our loyalty board has considered we have asked a question approximating that one—"Are you or have you ever been a member of the Communist Party?—and in each instance the reply has been "No", so that to the best of my knowledge no employee whose case has been considered by our agency loyalty board has ever admitted having been a member of the Communist Party.

Mr. BUSBEY. Again, for the record, I take it from your past testimony that you have never had a witness before your agency loyalty board who has identified anyone in the agency as a former member of the Communist Party.

Mr. GREENWOOD. Subject to a check of the minutes of the meetings of the agency loyalty board, I would say no. To the best of my memory at the moment I do not think we have ever had any witnesses before the agency loyalty board.

Mr. BUSBEY. Mr. Chairman, I would like Mr. Greenwood to review the records of his agency and advise this subcommittee if this employee whose name I will give to him off the record is still in the agency and what action if any the agency has taken under the amendment to Executive Order 9835 wherein the standard or yardstick was changed from "belief that the employee is disloyal" to "a reasonable doubt as to the employee's loyalty."

Mr. GREENWOOD. I will be happy to supply that information, Mr. Chairman.

Mr. FOGARTY. Off the record.

(Discussion off the record.)

Mr. FOGARTY. Do you have any further statement to make, Mr. Ching?

Mr. CHING. No, I do not, Mr. Chairman.

Mr. FOGARTY. Do you have anything further, Mr. Greenwood?

Mr. GREENWOOD. No, sir.

Mr. FOGARTY. Does anyone else? [No response.] Thank you very much, Mr. Ching and gentlemen.

THURSDAY, FEBRUARY 7, 1952.

LOYALTY OF PERSONNEL

Mr. FOGARTY. The committee will come to order.

The committee has before it at this time Mr. Ching, Director of the Federal Mediation and Concilation Service.

Mr. Ching, when you appeared before this committee a few days ago, Mr. Busbey, a member of this committee, requested certain information from you. I just received this letter, dated February 6, by messenger a few minutes ago. The letter reads:

DEAR CONGRESSMAN FOGARTY: The following information is respectfully submitted in response to the request of Congressman Fred E. Busbey, made in the recent hearings conducted by the Labor and Federal Security subcommittee of the House Committee on Appropriations.

The President's directive of March 13, 1948, regarding confidential status of employee loyalty records contained the following instructions:

"Any subpena or demand or request for information, reports, or files of the nature described, received from sources other than those persons in the executive branch of the Government who are entitled thereto by reason of their official duties, shall be respectfully declined on the basis of this directive, and the subpena or demand or other request shall be referred to the Office of the President for such response as the President may determine to be in the public interest in the particular case. There shall be no relaxation of the provisions of this directive except with my express authority."

Further instruction has been provided by the statement made by the President on August 5, 1948, and Memorandum No. 45, dated July 26, 1949, issued by the Chairman, Loyalty Review Board.

This Service must be guided by these instructions and consequently the information transmitted herein is limited by them. The employee to whom Congressman Busbey referred, and whom he identified off the record, is still employed by this Service as a commissioner (conciliator).

In response to the other inquiry of Congressman Busbey and within the limitations of the above instructions, may I state that this Service has never during my tenure as Director (September 1, 1947, to date) been informed by any individual that this employee was dismissed from the American Federation of Labor because of his membership in the Communist Party. Further, no individual has ever approached me with an offer to so testify; and, I am informed, no such offer has ever been made to any staff member in our Washington office.

In conclusion, and as indicated at the hearing, this Service is willing at any time to hear any witness or to receive any information which may be proffered respecting the loyalty of the employees of this Service.

Respectfully yours,

CYRUS S. CHING, *Director.*

Mr. CHING. May I make a statement, Mr. Chairman?

I went into this Service in 1947 after having spent all my life in business. I came to this Service only for the purpose of making a contribution to the betterment of labor relations and the Government of the United States. And as far as this Service is concerned, we do not want any Communists in this Service. We want to do everything

we can, if we have such people to get them out, and we are extremely careful as to who we take in.

We are certainly in the type of service where we cannot and will not tolerate that sort of thing. Within the limitations provided under the law which you have just read, we want to do everything we can to discover whether any such people are in our Service and I am always willing to have any evidence in a case that may be interpreted either in the Loyalty Board or the Appeals Board.

Mr. McGrath. Do I take it from your statement that if anyone, a Member of Congress or an individual citizen, has certain information relative to an employee in your agency that might tend to throw some light on the question of whether he had Communist leanings that you would be willing to receive that information and investigate it further?

Mr. Ching. We will use every effort, of course, as you know. These things you must weigh where they come from. We could not listen to gossip. Everything we can do under the Government procedures to discover whether we have any Communists or people of communistic leanings in our organization we will do.

Mr. McGrath. Any competent testimony or information you wound run down or investigate.

Mr. Ching. We certainly would.

Mr. Busbey. Mr. Ching, in your opinion, under the new amendment to the President's directive 9835, are you satisfied that this employee under discussion should continue his services in your Mediation Service?

Mr. Ching. I cannot answer that question because the case is now pending.

Mr. Greenwood. The case to which Mr. Busbey is referring is pending before the Loyalty Review Board for post audit. Under Memorandum 45 of the Loyalty Review Board we are directed to refer all inquiries to that Board for reply and we are directed not to reply to any questions so long as the case is before that Board.

Mr. Busbey. Did the Loyalty Review Board give you any indication as to when they would get around to a final decision on this particular individual?

Mr. Greenwood. No, sir.

Mr. Busbey. On December 31, 1948, didn't the Loyalty Review Board send this case back to your agency Loyalty Board with instructions to have a three member panel consider it and that one of the members of the previous two-member panel be disqualified from acting on this case?

Mr. Greenwood. I think that inquiry would have to be directed to the Loyalty Review Board for answering at this stage.

Mr. Busbey. This individual has been quite a controversial figure for a long period of years in your Board as to loyalty. Has he not?

Mr. Greenwood. I am not sure I understand that question.

Mr. Busbey. Haven't you had this individual's name up on several occasions to pass on his loyalty and in each instance given him a favorable recommendation?

Mr. Greenwood. I think, again, under the directive we have, since that does involve the proceedings in this case that the inquiry would at this point have to be directed to the Loyalty Review Board and we are prohibited from replying until they have completed their work on it.

Mr. BUSBEY. Has the Loyalty Board of the Mediation Service been satisfied in its opinion at this date that the man is loyal and should continue in service of the United States Government?

Mr. GREENWOOD. Once again, I am sorry but I am afraid we cannot answer that substantive question because of the pending action of the Board.

Mr. BUSBEY. Because of the circumstances and the attitude taken of the interpretation of the President's directive and the instructions, I think the next move on my part will be to send a letter today to the Chairman of the Loyalty Review Board. I shall ask for an immediate determination of this particular case by the Loyalty Review Board so we can arrive at a final decision.

Mr. FOGARTY. I think that will be the best procedure.

Mr. BUSBEY. That is all I have.

Mr. FOGARTY. Thank you, gentlemen.

THURSDAY, FEBRUARY 7, 1952.

NATIONAL LABOR RELATIONS BOARD

WITNESSES

PAUL M. HERZOG, CHAIRMAN
JOHN M. HOUSTON, BOARD MEMBER
ABE MURDOCK, BOARD MEMBER
GEORGE J. BOTT, GENERAL COUNSEL
CLARENCE S. WRIGHT, BUDGET OFFICER

SALARIES AND EXPENSES

Amounts available for obligation

(Revised)

	1951 actual	1952 estimate	1953 estimate
Appropriation or estimate	$8,562,500	$7,885,418	$9,800,000
Proposed supplemental due to pay increases		455,000	
Reimbursements from other accounts	−5,772	10,000	
Total available for obligation	8,568,272	8,350,418	9,800,000
Unobligated balance, estimated savings	−165,228		
Obligations incurred	8,403,044	8,350,418	9,800,000

Obligations by activities

(Revised)

Description	1951 actual	1952 estimate	1953 estimate
1. Field investigation of cases and informal disposition or preparation for formal processing	$5,562,524	$5,468,226	$6,261,587
2. Trial examiner hearing of unfair labor practice cases	675,023	596,758	797,491
3. Board adjudication of cases	1,058,481	1,094,643	1,219,005
4. Securing of compliance with Board orders, including enforcement through court orders	1,107,016	1,191,017	1,521,917
Obligations incurred	8,403,044	8,350,418	9,800,000

Obligations by objects

(Revised)

Object classification	1951 actual	1952 estimate	1953 estimate
Total number of permanent positions	1,484	1,408	1,581
Full-time equivalent of all other positions	42	26	22
Average number of all employees	1,384	1,248	1,475
Average salaries and grades:			
General schedule grades:			
Average salary	$4,690	$5,292	$5,328
Average grade	GS-7.6	GS-7.7	GS-8.0
01 Personal services:			
Permanent positions	$6,415,642	$6,639,892	$7,802,950
Part-time and temporary positions	152,785	110,000	90,350
Regular pay in excess of 52-week base		23,850	28,900
Payment above basic rates	62,372	69,500	72,250
Payments to other agencies for reimbursable details	3,205	3,500	
Total personal services	6,634,004	6,846,742	7,994,450
02 Travel	649,692	593,746	700,950
03 Transportation of things	24,451	25,600	25,600
04 Communication services	213,233	200,600	218,600
05 Rents and utility services	370,795	36,500	24,900
06 Printing and reproduction	244,018	272,900	335,900
07 Other contractual services	117,910	221,300	317,700
Services performed by other agencies	4,522	5,200	6,000
08 Supplies and materials	96,050	94,500	112,900
09 Equipment	44,009	39,830	38,000
13 Refunds, awards, and indemnities	420		
15 Taxes and assessments	3,970	12,500	25,000
Obligations incurred	8,403,044	8,350,418	9,800,000

Analysis of expenditures

(Revised)

	1951 actual	1952 estimate	1953 estimate
Unliquidated obligations, start of year	$768,143	$662,487	$575,232
Obligations incurred during the year	8,403,044	8,350,418	9,800,000
	9,171,187	9,012,905	10,375,232
Deduct:			
Reimbursable obligations	5,772	10,000	
Unliquidated obligations, end of year	662,487	575,232	808,140
Obligated balance carried to certified claims account	16,119	4,000	
Total expenditures	8,486,809	8,423,673	9,567,092
Expenditures are distributed as follows:			
Out of current authorizations	7,781,252	7,363,345	8,999,860
Out of prior authorizations	705,557	635,328	537,232
Out of anticipated 1952 supplemental for pay increases		425,000	30,000

Mr. FOGARTY. The committee will come to order.

The committee has before it the estimates of the National Labor Relations Board. Have you a statement, Mr. Herzog?

GENERAL STATEMENT

Mr. HERZOG. I have an outline of a statement, Mr. Chairman. I leave it to you whether you and your colleagues would prefer to interrupt me with your questions.

Mr. FOGARTY. I think it will be better if you go right through your statement and then we will ask our questions.

AMOUNT OF THE BUDGET ESTIMATE

Mr. HERZOG. The National Labor Relations Board comes before you again this year for the appropriation for fiscal 1953. The President's estimate, as the committee already knows, is for $9,800,000 for the coming year, of which approximately $8,000,000 would be for personal services.

APPROPRIATION AND SUPPLEMENTAL ESTIMATE FOR 1952

The appropriation available in the present year, following the passage of the personal services limitation on the floor of the Congress, was $7,885,418. To that, however, should be added a supplemental which has already been requested and, I think, submitted to Congress by now by the Bureau of the Budget, in the amount of $455000. The document we submitted here says $463,000, but the Budget Bureau has asked us to absorb an additional $8,000.

That brings the appropriation this year, assuming the supplemental for pay increases is granted, to $8,340,418. I might say in passing that we are absorbing out of miscellaneous expenses in 1952, $108,000.

FACTORS CONTRIBUTING TO INCREASED APPROPRIATION REQUIREMENTS

There is, despite this modification of the figures as they appear at first glance, a substantial increase for 1953 as against what was granted for 1952. I make no pretense that there is no such an increase; we simply ask that that increase be approved.

AMOUNT OF INCREASE REQUESTED

As a practical matter, the increase as between the 2 years, with the rent cost differential and pay act differential taken into account is approximately $1,375,000. That appears on page 4 of the justification statement that we have submitted to the committee.

I think that all this Board can do, gentlemen, is to present to you the facts on the Board's case load and needs and the Board's performance. We must, of course, leave the policy question as to how much shall be given to the Board, in what we know to be an economy year, to the committee and to Congress. We think your decision on that will be the determining factor as to the kind of job that the Board will be able to do in the coming year.

We are asking for this increase, as the President has approved it, primarily for two reasons: First, it flows out of the cut which was imposed in the present fiscal year. It is a fact that we have a very large accumulated unprocessed case load which has developed during 1952 and which will develop at an accelerated rate during the five remaining months of the fiscal year.

The unprocessed case load is particularly significant in the unfair labor practice cases, which you will find described by the code letter C cases in the justifications we have submitted.

The cut which we suffered this year, for which I realize this committee was to no extent responsible, is what has brought this first factor about. In our opinion we ought to reduce the backlog the Board has of unprocessed unfair labor practice cases by about 15 percent in 1953 in order to start toward our goal of being respectably

current. We will not be current—but will have a good start toward being respectably current. About two-thirds of that need can be attributed to the amount we will fall behind this year. The rest is an attempt on our part to improve the situation, which we had once hoped would be possible in 1952.

This committee, as I think you will recall, recognized the nature of the Board's problem last year. In its recommendation to the House it recommended a somewhat higher sum of money than we had had in fiscal 1951, when a reallocation of the rent factor was taken into consideration. There was a cut on the floor of the House long before the personnel limitation was imposed, which resulted, as the Congressional Record will clearly show, from what we think was a misunderstanding on the floor of the functions of this Board and the Wage Stabilization Board.

I do want to call the attention of the committee to the fact that we appreciate the sympathetic understanding this committee has always given to the Board's needs, and its desire to approve the President's estimate to the extent that the consciences of the committee's members permit.

The second factor that leads to an increased need in 1953 is the expectation that our case load will go up in 1953. We also have good reason to believe, and I will come back to some details later, that the case load of 1952 will show an increase of 10 percent over 1951. We think 1953 will show an increase of 12½ percent above the intake in the past fiscal year.

If you care to look at the statistics on page 12 of the justification, it will give you the picture of what our present case-load estimate is. These are the key statistics which we submit to you. We will comment on them in a few minutes. They are the basis of the request. They are fundamental facts the committee will want to have before it.

BOARD RELATION TO DEFENSE EFFORT

We want to remind the committee, although I assume it is really unnecessary, that the functions of the Board are very closely attached to the need for full defense production for what is still a defense preparation period. We cannot give you exact figures this year, but about half the Board's cases filed arose in defense activities or industries. As we told you last year, and as the committee apparently recognized, we are convinced that unless this Board can dispose readily of the cases filed with it, the tendency of employers and unions to rely on the Board rather than upon self-help, which means strikes and lock-outs, will be reversed. The instinct of people who can get quick needed service from a quasi-judicial arm of the Government is to go there, we do not want to see them go out on the sidewalk instead. We do not want to see that happen and we believe you will not either.

DIFFERENCES BETWEEN FUNCTIONS OF WAGE STABILIZATION BOARD

The Board's function is quite different from that of the Wage Stabilization Board. I would like to spend a minute on that, because there was a misunderstanding on the floor of the House which resulted in a cut of $300,000 below this subcommittee's recommendation

which, on the other hand, was largely restored on the Senate side before it disappeared again when the personnel limitation was imposed.

I think the members of this committee realize that the existence of the Wage Stabilization Board does not, as some people seem to have thought last year, reduce the need for the National Labor Relations Board. Their job is an entirely different one. Their main job is to handle wage-stabilization problems. However, their jurisdiction extends to a limited extent over strikes and potential strikes. That jurisdiction is a very narrow one. It is limited to those dispute cases submitted to the Board jointly by employers and labor organizations, and to those few cases which the President has submitted to the Board for consideration. Except for those few matters which may be on the periphery of the National Labor Relations Board's activities, there is nothing that the Wage Stabilization Board does that coincides with what we are doing.

Under the Defense Production Act they cannot handle cases inconsistently with the Taft-Hartley Act, and the Taft-Hartley Act confers exclusive jurisdiction on the National Labor Relations Board.

I would like, if there is no objection, Mr. Chairman, to submit for insertion in the record a statement I made on this subject before another subcommittee of the House.

Mr. FOGARTY. Put it in at this point.

(Statement referred to follows:)

STATEMENT BY PAUL M. HERZOG, CHAIRMAN, NATIONAL LABOR RELATIONS BOARD, JUNE 1, 1951

The members of the National Labor Relations Board appear today in response to the subcommittee's invitation, hopeful that we may be able to contribute constructively to a solution of some of the difficult problems with which the Congress and the Nation are faced.

The function of the National Labor Relations Board, as I said here several years ago, is to serve as the trustee of Congress for the administration of title I of the Labor-Management Relations Act of 1947. This Board is Congress' sole trustee for that purpose, and it is our intention to continue alone in that capacity so long as Congress and the President desire us to do so. We can find nothing in either the Defense Production Act or in Executive Order 10233 of April 21, 1951, to cause us to doubt this Board's continued exclusive jurisdiction over labor problems of the sort you have already entrusted to us. We therefore have no reason to question the recent allocation of certain entirely different dispute-settling functions to the Wage Stabilization Board. I will outline those differences later.

Until told otherwise, we will go on assuming that the National Labor Relations Board, and only the National Labor Relations Board, can and should handle unfair labor practice, representation and union-shop issues arising under the Taft-Hartley Act, and we will conduct our operations accordingly. Certainly the recent Executive order does not tell us otherwise. If it did, we should be the first to recognize it; and we should, and would, be the first to voice concern. We can discover no reason to do so at this time.

That is because Executive Order 10233, like the Defense Production Act, expressly provides in section 410 (4) that the Wage Stabilization Board may take "no action inconsistent" with the Labor-Management Relations Act of 1947. We construe these words to mean, among other things, that the new agency may not decide any issues or cases which Congress, when it passed title I of that act, committed to the jurisdiction of the National Labor Relations Board. As you know, it is only title I which is the primary concern of this Board, so these remarks are directed solely to the possible impact of the wage-stabilization program upon that particular title. Unless and until the Wage Stabilization Board, by word or action, puts a different construction upon this language of the Executive order—something which we think most unlikely in view both of its plain phrasing and of that Board's expressed intention not to intrude upon our jurisdiction [1]—we will continue confident that no fundamental

[1] Testimony of WSB Chairman Taylor before this subcommittee on May 28, 1951.

problems can arise between two agencies both dedicated to fostering industrial peace.

Of course, there is likely to be an occasional borderline issue, hard to envisage in detail at this early stage because experience with the War Labor Board of World War II, with its broader powers, does not afford a perfect parallel. But resolution of such issues should not be difficult, provided two factors are present. The first is mutual good will; the second is a set of orderly procedures for the interchange of information and opinion. From conservations with Chairman Taylor, I am convinced that the first exists to an unusual degree; the second, largely mechanical, will be established as soon as possible.

So far as the National Labor Relations Board is concerned, the starting point for our relations with the Wage Stabilization Board will be based upon two premises, recently set forth in my testimony before the Appropriations Subcommittees of the House and the Senate. The first premise is the oft-forgotten fact that, in handling labor disputes, the two Boards have entirely different functions to perform: We to encourage collective bargaining, and to remove obstacles to its fruition by conducting elections and by preventing and remedying unfair labor practices, pursuant to the provisions of the Taft-Hartley Act; they to settle, within the confines of the Executive order, those certified or jointly submitted disputes in defense industries where good-faith collective bargaining over the substantive terms of employment has momentarily broken down.

So, although the latter type of labor dispute is normally beyond our cognizance, it is only the National Labor Relations Board that has the legal authority to prevent unfair labor practices, whether committed by employers or by labor organizations;[2] it is only the National Labor Relations Board that has the authority and the facilities to run representation and union-shop elections. We are convinced that this is as true today as it was before the Executive order of April 21 was signed. If Congress agrees that we alone are expected to handle these matters,[3] we trust that it will see fit to confirm that fact by providing adequate funds for us to perform these necessary functions with speed. Especially in time of defense emergency, the employers and employees of the Nation are entitled to demand such speed of the only Board now authorized to perform these functions, or they will inevitably begin to look elsewhere for help.

The second premise which precludes duplication of effort by the two Boards is that the National Labor Relations Board, although firmly determined not to relinquish a single one of the powers which it exercises as your trustee, has no urge to expand its own jurisdiction. As I said when testifying in February before another committee of this House, a view recently reiterated by my colleague, Mr. Styles:

"In the last few months, people have come to us * * * saying that the National Labor Relations Board ought to try to expand its functions. They say: 'You should want to get in on this defense business and be called a defense agency. * * * Why don't you go down to the White House or Congress to get some additional functions which will tie in with the defense effort on the emergency side?'

" * * * We did not want to do that. * * * Our best contribution will be to do our present job better than ever, and do it more promptly. We would not follow the Washington fashion by always looking for new jurisdiction and new fields to conquer. We have our hands full already. * * * We think that the most efficient way for a Government agency to operate is to stick to its knitting."[4]

Those are the sentiments of the National Labor Relations Board. Perhaps partly because men have a tendency to attribute their own motives to others, we cannot now find any reason to believe, over and above the terms of the Executive order, that our counterparts on the Wage Stabilization Board have any different objectives in mind. The country to which we owe common allegiance is in danger; our common objective is to help defend that country by providing Government facilities to encourage industrial peace. If both Boards will keep that thought paramount at all times, surely we will have no difficulty in solving an occasional common problem consistently with the declared national policy.

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[2] Section 10 (a) of the Labor-Management Relations Act, which empowers the NLRB to prevent unfair labor practices, provides: "This power shall not be affected by any other means of adjustment or prevention that has been or may be established by agreement, law, or otherwise."

[3] A contrary impression appears to have prevailed on the floor of the House on April 18, when an Appropriations Committee recommendation was cut, following the erroneous contention that the Wage Stabilization Board would take over some NLRB functions. (Congressional Record, pp. 4200-4201). The NLRB's attempt to correct this impression appears at pp. 818-821 of the record of the Senate subcommittee's hearings on the Labor-FSA appropriations for 1952, and is consistent with the position taken here today.

[4] NLRB testimony before House Subcommittee on Labor-FSA Appropriations for 1952, at p. 7, as edited.

Mr. HERZOG. That document, Mr. Chairman, describes the differences in function between the two boards and points out that the National Labor Relations Board has no intention of transferring any of its jurisdiction to the Wage Stabilization Board. If there are questions later, I can handle that subject more fully.

INCREASED WORKLOAD

I just want to say there is no other agency of the United States that is authorized to handle unfair labor practice and election cases.

Why does the Board have to handle so many of them? The answer is that we have no control over our case load. We have to handle everything that comes in. I told the committee last year, in response to questions from Congressman Denton, that we do not call something a "case" just because someone drops into the office with an inquiry, or makes a telephone call, or because someone writes a letter.

The cases we count are formally filed by a sworn document by a party asking the Board to take jurisdiction. We are asked to run an election, and these are the cases we code as R cases. Or we are asked to investigate and remedy unfair labor practices—the cases we code as C cases.

When a case like that comes in we are in the same position as a dispensary in a hospital. We have to treat the patient. He may not always require much treatment, but we cannot refuse to take cases and we cannot eliminate a program as some agencies can do. If the appropriation is lowered, we still have to handle just as many cases as if the appropriation was high. The difference will be that we will handle them more slowly and less well. But handle them we must.

When the members of the public, employers and labor organizations, bring us a case, they are normally brought in our regional offices, and not in Washington, and disposed of there. There is nothing we can do with a case except to treat it the best way we can. Normally, the best way is the quickest way. A quick way is only possible when there are enough people on the staff to do it. There are not enough today. With the case load accumulating this year and the expected increase in case load this year and next, we will be worse off than ever unless the President's estimate is appropriated by the Congress. For that reason we feel it is our responsibility to come to you and urge this appropriation. This appropriation is a high one, although we are fully aware that in the minds of Members of the Congress and citizens generally, this is a year when national economy and the budget have to be watched.

CONTINGENT CASE LOAD NOT INCLUDED IN ESTIMATE

Our job is to administer the Labor-Management Relations Act. The only thing we can do is to tell you in good conscience what we think is necessary to accomplish that. As a matter of fact, in our propheey as to case load, we have not even put in all items which may arise. However, we think we ought to mention, as a matter of candor, some of the items, not included in our estimated case load, but which are contingent. We are, for example, putting in no request whatever for funds for national emergency elections which this Board must sometimes conduct on employers' last offers under title 2 of the Taft-Hartley Act.

We never know how many of these cases may arise. Last year there was only one. Next year there may be a great many. We think that is a matter of speculation. If we guess wrong and the figure is exceeded, we would have to come back to you for a deficiency. But I call that to your attention because, had we wanted to inflate this thing to impress the committee we could have put that in and let you cut it down. But we omitted it because it is contingent. That is the outstanding example of contingencies that might arise.

REQUEST FOR ELIMINATION OF PERSONAL SERVICES LIMITATION

Our main request, over and above the specific money requested, is that the Congress eliminate the limitation on personnel services which was put in on the floor of the Senate and the House last year. I think we were one of the very few regulatory agencies that were subjected to that limitation when the bill was finally passed.

Agencies, such as the Federal Trade Commission, which were in the independent offices bill, were apparently relieved of that in the final legislation. We were not. We hope we will be relieved this year if no such limitation is imposed generally, on regulatory agencies.

Our reasons are quite obvious. Nobody wants a limitation if he can avoid it. But over and above that, I suggest that, to an unusual extent, personnel is the lifeblood of the National Labor Relations Board. Our jobs can be done only by people. That is why, over the last few years, we have been cutting down on the proportion of our funds allocated to miscellaneous expenses. For the coming fiscal year I think it is only about 18½ percent.

PERSONNEL DECREASE SINCE JULY 1951

People are what we need. We have lost an awful lot of people this year. Since the 1st of July, the beginning of this fiscal year, we have dropped about 250 people and are down now to approximately 1,170. We were at over 1,400 on July 1. We were close to 1,400 at the time we appeared before this committee a year ago this month. This dropped 250 which, as you know, percentagewise is a pretty substantial amount.

EFFECT OF PERSONNEL DECREASE

Cases are filed with the Board in the field offices. It is not a matter of researching something in a laboratory. It is a matter of people going out to investigate the cases and talking to the customers. If a case gets to Washington—if it is one of the 12 to 15 percent that do—we have to have human beings to handle them and handle them fast. It is this cut in personnel which I alluded to which has led to the very substantial drop in unfair-labor-practice cases processed, a drop that will increase in the five remaining months of 1952. I am sorry to say that as a result of the cut our backlog of unprocessed unfair labor practice cases will grow by about 450 cases in 1952. The committee may possibly recall that when we were here last February to support the President's estimate of last year, we expressed the hope we could cut the old backlog down by 350. I think that if the amount recommended by this committee had been appropriated by the Congress we could have cut it down to a considerable extent. Instead of that, it will go up by about 450.

BACKLOG REDUCTION OF UNFAIR-LABOR-PRACTICE CASES

These cases which are going to get stopped at some stage of the proceedings are the expensive cases, the unfair-labor-practice cases that have to be litigated. That is why, in 1953, we will have a tremendous added expense unless Congress wants us to fall farther behind.

In 1951, I am glad to say, we were able to cut that backlog down by about 7 percent. It was a good production year for the Board and also at the General Counsel's end of the agency. Cases were efficiently processed. The members of the Board in fiscal 1951 issued about 1,900 opinions. This actually disposed of about 2,400 cases which were brought to the Board level. It was a record total—a record which we are certainly not going to be able to duplicate this year, even though we can maintain reasonably high efficiency. It cannot be as high as that again for another reason.

EFFECTS OF THE LOSS OF QUALIFIED PERSONNEL

We are trying very hard, recognizing it to be the job of every Government employee to stick to his knitting and do as much as he can to increase his efficiency, to have each person turn out a little more than before. Unfortunately, the results in 1952 have been in the opposite direction. The reason for that is that we have lost some of our best qualified employees all through the agency this past year. Some has been the result of the cut directly; some of it has been the result of the cut indirectly, because people have become nervous and do not see much future and leave their jobs.

Some of the best qualified people have gone to the Wage Stabilization Board, which can offer better opportunities for promotions because of their experience. In the past year, some of our ablest people have disappeared into private industry or the private practice of law. The rate has been somewhat accelerated this year because many of these people believed their futures were less certain than they had thought they were.

For this reason, our calculation of production rates for 1952 and 1953 will not be as high as 1951. We will do our best. However, we have tried very hard not to promise this committee what we cannot deliver, so you should know that we may not be able in the rest of 1952–53 to maintain the 1951 production rate.

The Board's object is to keep as current as possible in handling its cases. In fiscal 1952 to date, despite the serious cut in appropriations, we have succeeded in keeping pretty current in the handling of election, or representation, cases. We have done that very deliberately, but something else has been sacrificed. We thought the sacrifice worth while, because the rapid conduct of an election and eliminating uncertainty as to who is the bargaining agent affects so many people and can sometimes be done so simply that we thought we should not let the R cases fall behind. Therefore, as you will see from statistics on page 12, we have kept pretty current in the representation cases. And we hope to continue to do it this year and in fiscal 1953.

If we were unable to do that, things would be worse than they are today from the viewpoint of those unsatisfied pressures on the Board by employers and unions which so complicate getting this job done. "We just cannot wait any longer for an orderly disposition of our

problem," and, "We want people to vote by secret ballot and if you cannot do it we may have to use other means to prove our majority"—are what we hear from unions when these cases are delayed. So also the employer wants to know. If we cannot give him an election quickly, he may be in serious trouble; if it is a defense plant the country will also be in serious trouble.

Knowing that today's problem is largely in the unfair-labor-practice cases, the Board, in supporting the President's estimate, has reached the conclusion that we just cannot do the ideal thing in 1953. We would like to clean up this entire backlog in 1953, but with the economy program of the President and Congress, that simply cannot be done, even though—looking at it from our own narrow point of view—we would like very much to do it.

THREE-YEAR PROGRAM TO REDUCE UNFAIR-LABOR-PRACTICE CASES

Therefore, the estimate contemplates the beginning of what we regard as a 3-year plan to cut down the backlog in unfair-labor-practice cases, while keeping current in representation cases, in fiscal 1953, 1954, and 1955. The target for 1953, and we urge upon you that it is a very low target, is to cut down the backlog in unfair-labor-practice cases by about 15 percent. To oversimplify it a little, it will mean getting caught up on the 450 cases we are dropping behind this fiscal year and trying to get 300 ahead.

As you can see from the material at page 12, our plan is to process about 750 more cases in certain unfair-labor-practice categories than are actually being filed. That is, move them along the assembly line and dispose of them if they require decision. These cases are in the categories described on page 12. Those charges of unfair labor practices known as CA's and CB's do not require priority. The cases classed as CC and CD require priority, and have been given the same full priority this year that representation cases are getting. The backlog problem is in the other two categories.

This is far from ideal, but it is the most we can hope to do under the President's estimate. If the President's estimate is cut, we cannot do that.

We would like to get down to an accumulated backlog of 2,700 unfair-labor-practice cases by the end of 1953. There are 3,000 such cases pending at this time, as against 2,300 R cases. We have told you in this document what we think the case filings will be in the coming fiscal year. You will note that the unfair-labor-practice cases represent about 35 percent of the total—a little over one-third—and R cases the balance.

EFFECT OF ELIMINATING UNION-SHOP ELECTION CASES

I call the committee's attention to this fact so, in examining past years' records you will be sure not to ignore one feature. In the past, we also put in a very large estimate as to the number of union-shop election cases which we expected to have filed. These are classified as U cases. The committee will recall that in October 1951, an amendment was passed that eliminated most of these union-shop cases. There will be some in fiscal year 1953, but only a few elections classed as UD cases. These are petitions to deauthorize as distinct from those which affirmatively authorized a union shop, but are now abolished.

Therefore, the over-all figures which we are giving you for 1952 and 1953 will run 5,000 or 6,000 cases lower than in past years. The figure you will want to compare, as between these years' presentation and past presentations, are the figures for C plus R cases as they appear in our justifications, namely, unfair-labor-practice cases plus representation cases. These are the figures which should be compared with our previous actual case load in past years.

The Board was fortunate in having that amendment passed in October. I hate to think what the backlog would have been in unfair-labor-practice cases and R cases had not Congress relieved us of the burden of all these other cases on the 20th of October. It has been a necessary windfall. If you examine the statement of the House Committee on Education and Labor in transmitting S. 1959 to the House this fall, you will find that they understood that any funds we saved in eliminating union-shop elections would be specifically used by the Board to keep the rest of its calendar more current.

This House Report 1082 accompanied S. 1959, and reads as follows:

> Elimination of these elections will permit the Board to devote its time to more expeditious handling of its heavy docket of representation and unfair-labor-practice cases.

It has, indeed, done that. If that had not been done we would have had an even grimmer report to give you.

REASONS FOR INCREASED CASE LOAD

The committee may wonder why the case load of the Board is going up. In the first place, as we told the Bureau of the Budget, and we now tell you, there is every indication that a continuously expanding economy which means new plants being developed and more employment in these plants, simply means more employees and more human beings to bring cases to the Board. That has been the pattern in every period of expanding economy so far as this Board's history is concerned.

The unfair-labor-practice cases will come up as the law of averages suggests. If X people bring X cases, then X plus 1 people will bring X plus 1 cases of unfair labor practice.

So far as election cases are concerned there is a slightly different additional factor. You get special problems in new plants. The employer wonders who to bargain with, because labor organizations will disagree as to who represents his employees. He needs an election to be sure he is bargaining with the majority union. Unions finding new plants are interested in organizing them; if they get reasonably far they try to win an election. This is better than a strike threat.

Secondly, the period of conversion from ordinary production to defense production is not over. Whenever a plant that made one sort of thing makes another, you get new processes and new techniques. Very often they are not only larger plants but old plants which are doing slightly different things. Whenever that happens there is a very great likelihood of this Board being called on to conduct an election for new employees or for a new bargaining unit.

NUMBER OF R CASE ELECTIONS IN 1950 AND 1951

If a plant with one type of employees turns to war production and supplements its old staff with new type of employees, there may be a need for new bargaining arrangements.

I might add that this Board ran more elections in fiscal 1951 than in any prior year. We ran 6,500 such elections and averaged something over 600,000 voters. The average election ran around 100 people. In fiscal 1950 we only ran 5,700 such elections. I am referring now to R cases and excluding union-shop matters, which for all practical purposes are academic today.

The turn-out for elections is singularly high. Approximately seven out of eight employees cast their ballots. Eighty-eight percent has been the figure for many years now. That shows the importance of these elections; it is not a simple matter of having the polls open and anyone showing up who cares. A lot of people do come. In making these facilities available to the employees of this country, it seems to me that Congress had done a remarkable thing.

A third factor which we think will explain the increasing case load for the next 18 months, is the sort of intangible community pressure when there is a plea not to use self-help—not to use strikes when the country is on the edge of a war crisis and in a state of emergency. People do not like to go out on strike in these circumstances; we think there will be pressure on people to use the Board's peaceful facilities because public opinion is so solidly for them.

Yet, there are some people who have other pressures on them. One pressure is that, if the Board cannot provide these facilities quickly enough, then these new cases that will be filed and cannot be processed will not be cases on which the Board can be helpful to the country. People will file the cases to avoid self-help, but if we are slow about it they will go out on the sidewalk later anyway.

These assumptions are not pure speculation. The projection of the figures over the last 6 months shows a definite increase in the incoming case load. December was a light month; it always has been. But October and November were very high. January, on which we have only unofficial statistics today, indicates a trend up: The figures show 1,309 new cases filed, of which approximately one third are in the unfair labor practice categories. The probabilities are, judging from the Board's experience in past years, that that trend in January will continue for the second half of the fiscal year.

ACCURACY OF CASE-LOAD ESTIMATES

Last year we called to the committee's attention the accuracy of this Board's prophecies as to its probable case load. I hope we did not sound too boastful. The committee members looked rather mystified that our prophecies were so accurate.

I think we can mystify you again this year, but without boasting.

It looks as though the Board's prophecies about future case load are still extremely accurate. To some extent they have been on the conservative side. I have prepared for submission in the record if you will receive it, Mr. Chairman, a chart showing, for the past 3 years, the Board's prophecies as to future case loads when it appeared before the committee, as against actual intake when each year was over. That would ordinarily be the equivalent of the present prophecy, made in February 1952, which is now offered for the fiscal year 1953.

Mr. FOGARTY. We will put these tables in the record.

(Tables referred to are as follows:)

Comparison of Board's predictions at prior appropriations hearings for the respective years with the actual case intake in unfair labor practice and representation cases for fiscal years 1950, 1951, and 1952 [1]

1950				1951				1952			
	Unfair labor practice (C)	Representation (R)	Total		Unfair labor practice (C)	Representation (R)	Total		Unfair labor practice (C)	Representation (R)	Total
Estimate in June 1949	5,200	9,800	15,000	Estimate in January 1950	5,950	9,350	15,300	Estimate in February 1951	5,800	10,750	16,550
Actual	5,809	9,279	15,088	Actual	5,262	10,250	15,512	First 6 months projected for year.[2]	5,746	10,520	16,266

[1] Union shop (U) cases are omitted, as of no significance for the future, because they were virtually eliminated by an amendment to the statute in October 1951. Note, however, that they also show the conservatism of the Board's prophecies. In fiscal 1950 and 1951 the Board's actual intake of U cases was more than 2,000 and 1,800 cases higher, respectively, than the prediction in the original estimates.

[2] Adjusted to past experience, showing almost 55 percent of filings are normally in second half of fiscal year, rather than just doubled.

Mr. HERZOG. I just want to underscore one or two points. We have eliminated the union-shop prophecies. As a footnote to this chart will show, we underestimated there as well. We left them out because they are of very little value for the future. For fiscal 1950 we prophesied in June 1949, that the Board would have 15,000 unfair labor practice and representation cases. We had 15,088. For fiscal 1951 we prophesied in January 1950 that the Board would have 15,300. We had, in fact, 15,512, a somewhat higher figure.

For fiscal 1952 we prophesied, in February 1951, that the Board would have 16,550 cases for the present fiscal year. Obviously, the present fiscal year is not over and I cannot tell you how accurate that prophecy will be, but I can tell you what the chart will show. Projecting the first 6 months of the fiscal year and allowing for the fact that 55 percent of the cases are usually filed in the second half, the number of cases to be filed in 1952 would be 16,266 as against a prediction of 16,550. You will see that even the projection will not account for what we expect we are going to get in the fiscal year; it will probably run up to 17,000.

We think these charts are important. I call your attention to page 963 of our testimony for fiscal 1951 and to the chart introduced in the record at page 17 of last year's hearings for fiscal 1952. We offer these again because we assume this committee will want to take into consideration the fact that the National Labor Relations Board has not been inflating its estimates, in order to look as though we are going to get a lot of work which we do not really expect to get. We said what we would get in past years, and we really got it.

Although it is not on the chart, I think the record should also show that in fiscal 1949 our prophecy was equally on the conservative side. We prophesied 13,025 new cases and we received 13,684.

PLAN TO INCREASE PERSONNEL

Except for any discussion that the committee may want to have with us about personnel increases that practically completes the case.

The committee will notice that the plan for fiscal 1953, if the President's estimate is approved, would be to bring average employment to about 1,450 people, of whom about 60 percent would be out of Washington in the 28 regional and subregional offices. In these offices, as the committee will recall for my replies to Mr. Denton last year, about 85 percent of the cases are disposed of informally by settlement, withdrawal, or administrative dismissal. It is the other 15 percent, which have to go to hearing and require formal action, that are the expensive ones. These cases account for most of this backlog that I have spoken of before.

We think the increase in case load will run throughout the agency in this unfair labor practice group of cases. It will appear in the field offices and among the trial examiners whom we will need to try these cases. It means that the Board will need more legal assistants and more in the Division of Law. The justifications will show a breakdown by divisions of the Board.

EFFECT OF SUPREME COURT DECISION IN UNIVERSAL CAMERA CORPORATION CASE

I might say, and offer an earlier letter on the subject for the record if you are willing to receive it, that we think a Supreme Court decision last year will increase our litgation very substantially for a year or more to come. That is the decision in the Universal Camera case, which some say has changed the rule of review in the circuit courts, and which we are certain will increase our litigation until it is fully tested.

(The letter referred to is as follows:)

NATIONAL LABOR RELATIONS BOARD,
Washington 25, D. C., March 6, 1951.

Hon. JOHN E. FOGARTY,
Chairman, House Subcommittee on Appropriations for Labor-Federal Security, House of Representatives, Washington, D. C.

DEAR CONGRESSMAN FOGARTY: Since we testified before your subcommittee on February 14, there has been an unexpected development which we consider it our duty to bring to your immediate attention. The Supreme Court of the United States has rendered a decision which seems most likely to increase this Board's expenses for court litigation in the foreseeable future. We had no reason to anticipate this particular broad decision, rendered last week, at the time we prepared our original estimates for the Bureau of the Budget or when we appeared before you. It has evidently changed the formula for judicial review of Board decisions. The decision, which overruled six Federal courts of appeal, is characterized by Labor Relations Reporter, the leading professional publication in the field, as "Overthrowing judicial review formulas which have governed labor relation cases since the early days of the original Wagner Act and stood unchanged in application up to the present."

In *Universal Camera Corp.* v. *National Labor Relations Board*, No. 40, October term, 1950, decided February 26, 1951, the Supreme Court held that the "Administrative Procedure Act and the Taft-Hartley Act direct that courts must now assume more responsibility for the reasonableness and fairness of Labor Board decisions than some courts have shown in the past." The court did not define the precise scope of review which the courts of appeals should exercise in such cases, but nevertheless made it clear that they were to examine Board findings and decisions "in the light that the record in its entirety furnishes, including the body of evidence opposed to the Board's view." The Supreme Court also held that on review of Board orders, trial examiner's recommendations which the Board itself did not accept must be given such weight as "in reason and in the light of judicial experience they deserve."

The Board is convined that this decision will have the immediate effect of increasing its workload in connection with securing compliance with and enforcement of its orders. In the first place, it seems certain that the Board will soon be required in a far greater percentage of cases than heretofore to support the correctness of its decisions and orders in the Federal courts. This is because the expansion in scope of judicial review brought about by this Supreme Court decision, coupled with the present indefiniteness of the standard, will provide a new incentive to employers and unions (who would previously have deemed the chances of securing reversal of a Board order against them insufficient to warrant further litigation), to seek review of the Board's orders in the courts of appeal. At present, as indicated in our recent 1952 justifications, 60 percent of the cases in which the Board issues final orders require court litigation in order to obtain compliance. For the reasons just stated, this percentage is bound to increase materially, especially during the testing period of fiscal 1952 and 1953. This will inevitably involve greater expenditure for printing briefs and records than we anticipated when preparing the Board's estimates for the Bureau of the Budget or when testifying before your subcommittee.

Second, in virtually every case in which litigation is necessary to secure enforcement of Board orders, a greater amount of work will be required of Board attorneys than formerly. Thus more enforcement attorneys will be needed. This results from the fact that, in seeking enforcement, the Board's attorneys must now endeavor to convince the courts of the "fairness and reasonableness" of the Board's decision, and not merely, as under the old rule of review, that the

decision has "warrant in the record and a reasonable basis in law." (*N. L. R. B. v. Hearst Publications, Inc.*, 322 U. S. 111.) Board briefs must now discuss the "body of evidence opposed to the Board's view" as well as the evidence supporting it; the brief must not only argue the reasonableness of the Board's view, but attempt to demonstrate the preponderant character of the evidence upon which the Board relied over the opposing evidence. When a trial examiner's recommendation is rejected, the brief must also discuss the weaknesses of his recommendation and show that the Board's contrary view is the more reasonable.

Because we are confident that Board decisions are founded upon a correct appraisal of the evidence, we believe that the new Court standards of review will, in the long run, result in as many affirmances of Board decisions as did the old. But meanwhile there will be a lot of additional litigation, and litigation—even if successful—costs money. That is why we are taking the liberty of calling attention to this recent and unexpected development after our hearings were concluded. It cannot help but amplify—for reasons completely beyond our control—the Board's need for the full amount of the President's estimate for fiscal 1952.

I am enclosing a copy of this letter for each member of the subcommittee.

Very sincerely yours,

PAUL M. HERZOG,
Chairman.

Mr. HERZOG. Finally, I want to remind the committee that this is not the kind of agency where we can do very much cutting in one place rather than another. Any cutting there is going to be has to be on an over-all basis. We have no definite program that can be eliminated. The process is one of an assembly line. If something gets blocked up at one stage, that has an impact on the next.

There is one more vital point. Although only 15 percent of the cases are handled slowly and expensively and require formal action, the Board's efficiency in dealing with these cases really determines the time and the cost of handling the other cases which can be handled informally. If it is going to take the Board as long to get its formal cases out as it is likely to in the next few months, and as it did in the years preceding 1948, people just are not going to settle as many of the informal cases.

Having knowledge of the delays involved in litigation, some seek to derive advantage from it. If the Board takes forever to litigate a case, they are not going to settle. If they do not settle, there is one more case to litigate and the total goes up and up and up in geometric progression. That is why we say that in fiscal 1953 we need all the tools you can give us to do the job that must be done. The job is here in front of us. We are not out looking for it. We want to do it well and we would like to have all the tools you can provide. Whatever tools you do provide will be utilized to the greatest possible extent, but we hope they will be adequate.

Mr. FOGARTY. Thank you, Mr. Herzog.

INCREASE IN POSITIONS REQUESTED FOR 1953

In 1952 you have available $8,350,418; and you are asking for $9,800,000 in 1953 which is an increase of $1,449,582. You have 1,409 positions in 1952 and are asking for 1,581 positions in 1953, an increase of 172. What is this other breakdown where you show 1,221.6 in 1952 and 1,452.4 in 1953? What is the difference in the two sets of figures?

Mr. HERZOG. I think I will ask Mr. Wright.

Mr. WRIGHT. The difference is that the latter figures are the average employment as described on table 2 on the following page.

It shows by organizational units where that increase in average employment is. During the current year we have a large position structure that is a result of high level employment at the beginning of the year. The resulting cut shows up where we have a very high lapse rate.

Mr. FOGARTY. You have available for 1952 $8,350,418. How many positions will that take care of?

Mr. WRIGHT. It would take care of an average number of 1,220 positions, but because of the high employment at the beginning of the year the actual positions would be over 1,400.

NUMBER OF UNFILLED POSITIONS

Mr. FOGARTY. How many unfilled positions do you have at the present time?

Mr. WRIGHT. Out of 1,409, approximately 250 unfilled. Somewhere between 240 and 250 which will remain unfilled because of lack of funds.

Mr. FOGARTY. So if you did get $9,800,000 you would actually have an increase of about 400-plus positions?

Mr. WRIGHT. That is correct. The recruitment problem would be——

Mr. FOGARTY. Do you think you can get the personnel?

Mr. WRIGHT. We think so under present conditions. But it will mean serious training problems.

Mr. FOGARTY. Do you have any breakdown of these new positions as to the grades they are being recruited for?

Mr. WRIGHT. I do not have that with me.

Mr. FOGARTY. Will you supply that for the record?

Mr. WRIGHT. Yes, sir.

(The requested information follows:)

Analysis of recruitment plan estimated in fiscal year 1953 request to Congress

Grade and title	Number of people to be recruited	Organization location
DEPARTMENTAL		
GS-15. Assistant general counsel	1	Division of Operations.
Trial examiner	4	Division of Trial Examiners.
GS-14. Assistant general counsel	1	Division of Law.
Associate executive secretary	−1	Office of the Executive Secretary.
Trial examiner	7	Division of Trial Examiners.
GS-13. Associate executive secretary	1	Office of the Executive Secretary.
Trial examiner	11	Division of trial examiners.
Administrative examiner	1	Division of Operations.
Attorney	1	Division of Law.
GS-12. Affidavit compliance officer	1	Affidavit Compliance Branch.
Legal assistant	9	Board Members Offices.
Attorney	8	Division of Law.
Assistant budget officer	1	Division of Administration.
Industrial analyst	1	Do.
Special assistant to director of administration	−1	Do.
GS-11. Legal assistant	1	Board Members Offices.
Legal examiner	3	Division of Policies and Appeals.
Attorney	9	Division of Law.
Industrial analyst	2	Division of Administration.
GS-9. Legal assistant	9	Board Members Offices.
Attorney	8	Division of Law.
Industrial analyst	1	Division of Administration.
Information and editorial specialist	−1	Division of Information.
Administrative assistant	−1	Division of Trial Examiners.
GS-8	−1	
GS-7	19	
GS-6	2	
GS-5	2	
GS-4	26	
GS-3	31	
GS-2	4	
CPC-3	3	
WB-5	1	
Total permanent, departmental	163	
FIELD		
GS-13. Field attorney	5	Field offices.
GS-12. Field attorney	26	Do.
GS-11. Field attorney	24	Do.
Field examiner	13	Do.
GS-9. Field attorney	13	Do.
Field examiner	23	Do.
GS-7	17	Do.
GS-5	20	Do.
GS-4	19	Do.
GS-3	86	Do.
GS-2	7	Do.
Total permanent, field	253	
Total permanent, departmental and field	416	

ESTIMATED COST OF PAY ACT INCREASE FOR 1952

Mr. FOGARTY. What do you estimate the total cost due to the pay act will be for 1952?

Mr. WRIGHT. $563,000.

Mr. FOGARTY. And what is the supplementary for?

Mr. WRIGHT. $455,000.

Mr. HERZOG. We are absorbing the $108,000 out of miscellaneous this year. For next year I believe the amount necessary for the cost of the pay act increases will be about $650,000 out of that $9,800,000. On page 4 of the justification we showed that.

COMPARATIVE CHANGES IN POSITIONS FOR 1952 AND 1953 BY ORGANIZATIONAL UNIT

Mr. FOGARTY. We will put in the record tables 1, 2, 3, and the table on page 12.

Mr. WRIGHT. There will have to be a correction.

Mr. FOGARTY. You can correct that and put it in.

(The tables referred to follow:)

Comparative table showing for 1952 and 1953 positions and annual salaries for the various organizational units of the agency and estimated requirements by object classification for miscellaneous expenses

Organizational unit or object classification	1952 fiscal year		1953 estimated requirements		Comparison of 1953 estimated requirements to 1952 estimates	
	Positions	Annual salary	Positions	Annual salary	Positions	Annual salary
Office of the General Counsel	5	$37,650	5	$37,650		
Division of operations	17	124,085	18	134,885	+1	+$10,800
Affidavit compliance branch	12	44,835	4	19,460	−8	−25,375
Regional directors and officers in charge	29	294,880	29	294,880		
Field examiner	257	1,526,000	296	1,739,140	+39	+213,140
Field attorney	134	953,640	193	1,304,715	+59	+351,075
Field clericals	425	1,454,874	446	1,519,079	+21	+64,205
Division of policies and appeals	23	160,200	24	165,020	+1	+4,820
Division of law	90	562,675	120	725,765	+30	+163,090
Total, Office of General Counsel and Staff	992	5,158,839	1,135	5,940,594	+143	+781,755
Board members' offices and legal assistants	105	770,535	120	848,015	+15	+77,480
Office of the Executive Secretary	20	91,345	21	94,775	+1	+3,430
Office of the Solicitor	3	25,795	3	25,795		
Division of Trial Examiners	55	505,250	72	634,610	+17	+129,360
Division of Administration	225	857,995	221	835,408	−4	−22,587
Division of Information	9	44,305	9	44,610		+305
Total, Board members' offices and related units	417	2,295,225	446	2,483,213	+29	+187,988
Total permanent for the Agency	1,409	7,454,064	1,581	8,423,807	+172	+969,743
Summary:						
Total permanent, departmental	564	3,224,670	617	3,565,993	+53	+341,323
Total permanent, field	845	4,229,394	964	4,857,814	+119	+628,420
Total permanent, departmental and field	1,409	7,454,064	1,581	8,423,807	+172	+969,743
Deduct lapse due to delay in filling positions	−187.4	−814,172	−128.6	−620,857	+58.8	+193,315
Net permanent, departmental and field	1,221.6	6,639,892	1,452.4	7,802,950	+230.8	+1,163,058
Part-time and temporary positions		110,000		90,350		−19,650
Regular pay in excess of 52-week base (5 U. S. C. 944)		23,850		28,900		+5,050
Payments above basic rates		69,500		72,250		+2,750
Payments to other agencies for reimbursable details		3,500				−3,500
01 Personal services		6,846,742		7,994,450		+1,147,708
02 Travel		599,746		700,950		+101,204
03 Transportation of things		25,600		25,600		
04 Communication services		200,600		218,600		+18,000
05 Rents and utility services		31,500		24,900		−6,600
06 Printing and reproduction		272,900		335,900		+63,000
07 Other contractual services		221,300		317,700		+96,400
Services performed by other agencies		5,200		6,000		+800
08 Supplies and materials		94,500		112,900		+18,400
09 Equipment		39,830		38,000		−1,830
13 Refunds, awards, and indemnities						
15 Taxes and assessments		12,500		25,000		+12,500
Obligations incurred		8,350,418		9,800,000		+1,449,582

TABLE II.—*Comparative table showing for 1952 and 1953 estimated average employment for the various organizational units of the agency*

Organizational unit	Fiscal year 1952	Fiscal year 1953	Comparison of 1953 estimated requirements to 1952 estimates
Office of the General Counsel	5.0	5.0	
Division of Operations: Department staff	15.9	15.9	
Affidavit Compliance Branch	5.1	4.0	−1.1
Field staff:			
Regional directors and officers in charge	29.0	29.0	
Field examiners	242.6	274.7	+32.1
Field attorneys	126.6	167.8	+41.2
Field clericals	347.7	406.6	+58.9
Division of Policies and Appeals	20.7	22.4	+1.7
Division of Law	78.4	111.0	+32.6
Total, Office of General Counsel and staff	871.0	1,036.4	+165.4
Board members' office and legal assistants	92.9	112.8	+19.9
Office of the Executive Secretary	17.8	20.2	+2.4
Office of the Solicitor	3.0	3.0	
Division of Trial Examiners	45.9	63.6	+17.7
Division of Administration	183.6	207.8	+24.2
Division of Information	7.4	8.6	+1.2
Total, Board members' offices and related units	350.6	416.0	+65.4
Total permanent for the agency	1,221.6	1,452.4	+230.8
Summary:			
Total permanent, departmental	475.7	574.3	+98.6
Total permanent, field	745.9	878.1	+132.2
Net permanent for the agency	1,221.6	1,452.4	+230.8

TABLE III.—*Comparative table by organizational unit of increases in positions and in average employment as requested for 1953 fiscal year over 1952 fiscal year*

Organizational unit	Comparison of 1953 estimated requirements to 1952 estimates		Comparison of increased average employment with increased number of positions
	Increased number of positions	Increased average employment	
Office of the General Counsel			
Division of Operations:			
Departmental staff	+1		−1.0
Affidavit Compliance Branch	−8	−1.1	+6.9
Field staff:			
Regional directors and officers in charge			
Field examiners	+39	+32.1	−6.9
Field attorneys	+59	+41.2	−17.8
Field clericals	+21	+58.9	+37.9
Division of Policies and Appeals	+1	+1.7	+0.7
Division of Law	+30	+32.6	+2.6
Total, Office of General Counsel and staff	+143	+165.4	+22.4
Board Members' offices and legal assistants	+15	+19.9	+4.9
Office of the Executive Secretary	+1	+2.4	+1.4
Office of the Solicitor			
Division of Trial Examiners	+17	+17.7	+0.7
Division of Administration	−4	+24.2	+28.2
Division of Information		+1.2	+1.2
Total, Board Members' offices and related units	+29	+65.4	+36.4
Total permanent for the agency	+172	+230.8	+58.8

Case-load comparison, 1952–53

Type of case	Symbol used to designate type of case	Actual case intake January 1951 through December 1951	Estimated case intake		Estimated cases to be processed	
			Fiscal year 1952	Fiscal year 1953	Fiscal year 1952	Fiscal year 1953
Charges of employer unfair labor practices under sec. 8 (a)	CA	4,186	4,685	4,825	4,408	5,482
Charges of union unfair labor practices under sec. 8 (b) (1), (2), (3), (5), (6)	CB	816	1,015	1,050	842	1,143
Charges of union unfair labor practices under sec. 8 (b) (4) (A), (B), (C). These cases require the securing of mandatory injunctions under provisions of sec. 10 (l)	CC	187	200	215	200	215
Charges of union unfair labor practices involving jurisdictional disputes under sec. 8 (b) (4) (D)	CD	74	100	110	100	110
Total, complaint-type cases		5,263	6,000	6,200	5,550	6,950
Employee or union petitions for certification under sec. 9 (c) (1) (A) (i)	RC	9,333	10,075	10,250	10,075	10,250
Employer petitions for certification under sec. 9 (c) (1) (3)	RM	419	525	550	525	550
Petitions for decertification under sec. 9 (c) (1) (A) (ii)	RD	331	400	400	400	400
Total, representation-type cases		10,083	11,000	11,200	11,000	11,200
Subtotal, complaint- and representation-type cases		15,346	17,000	17,400	16,550	18,150
Petitions for authorization of union shop under sec. 9 (e) (1) and petitions for deauthorization of union shop under sec. 9 (e) (2)	UA and UD	5,152	[1] 1,675	[2] 200	[1] 1,675	[2] 200
Grand total		20,498	18,675	17,600	18,225	18,350

[1] 1,787 UA and UD cases were actually filed in the first 6 months of fiscal year 1952. Of this number approximately 250 union-authorization cases were filed in the month of October just before Public Law 189 became law.
[2] UD cases only.

ESTIMATED SAVINGS DUE TO UNION SHOP ELECTIONS AMENDMENT

Mr. FOGARTY. This amendment to the act last year—what do you figure that is going to save in appropriated funds?

Mr. HERZOG. It cost us, as far as we know, about $300,000 to process the union-shop elections in 1951. In fiscal 1952 we had to operate under a requirement to run such elections for pretty close to 4 months, or one-third of a year. I would guess we probably saved about $200,000. That $200,000 was used, in accordance with the suggestion of the House committee report that I read you, to keep current in representation cases and not to fall quite as far behind in unfair labor practice cases.

FUNDS FOR CONDUCTING ELECTIONS IN BUILDING TRADE

Mr. FOGARTY. Is there any money in this budget for holding elections in the building trade?

Mr. HERZOG. No, sir.

Mr. FOGARTY. Would it be possible under the 1952 appropriation or the request for fiscal 1953 to conduct elections on a large scale?

Mr. HERZOG. I think we probably can run a small number of them within this budget as recommended by the President.

Mr. FOGARTY. If you got into this field it will cost a lot of money.

Mr. HERZOG. It certainly will.

Mr. FOGARTY. Why not suggest some amendments similar to the ones adopted last year to take care of a situation like this?

Mr. HERZONG. I think we probably ought not to recommend substantive amendments of that sort. If Congress cares to pass them, provided the amendments are of akind consistent with the rest of the act, it will be easier for us. We had to decide that issue last spring after the hearings before you; we found we were obliged by statute to run these elections.

Mr. FOGARTY. You do not have any money in this bill for this?

Mr. HERZOG. That is correct.

REFERENCES TO PENDING CONGRESSIONAL AMENDMENTS TO ACT

Mr. FOGARTY. Are there any other amendments to the act pending in Congress?

Mr. HERZOG. There are a few. An amendment put in a couple of weeks ago, which we have to analyze, would change the definition of "obligation to bargain" as applied to employers and labor organizations. It was put in by Senator Murray of Montana. I do not know whether it is in on the House side or not. I imgaine there will be others. This one would eliminate the printing trades from coverage of much of the act.

Mr. FOGARTY. You say you do not think you should urge these amendments? But you are called upon to testify?

Mr. HERZOG. If we are called upon to testify, we will testify. Last year some bills were put in and my colleague, Mr. Reynolds, in my absence, testified on some such legislation last summer. There were some objections taken to the technical aspects of the legislation introduced. He did not think it very practical, but I do not believe that testimony took a definite position on the merits of the issue. Those present can correct me if they wish to. We found in these particular bills some problems that were so serious that we had to call the other committee's attention to them. We have not actually run many elections in the building industry.

Mr. FOGARTY. Where the various States have a State labor board set up, why can't you push a little work on to these labor boards?

Mr. HERZOG. As I said in testifying last year, I would personally like to do it. I do not know that I can speak for everyone here. The reason we cannot do it is because in a State such as yours or mine where there is a State board, section 10 (a) of the Taft-Hartley Act applies. There is a provision preventing ceding these cases unless the State act is consistent with the Federal act. There are no State acts which in important respects are consistent with the present Federal act. So, we have been fully inhibited from ceding cases to New York, Rhode Island, and other States.

Mr. FOGARTY. If that was stricken from the act, what would be the saving?

Mr. HERZOG. I should think the Board would feel much freer to cede cases to the State boards, but I cannot say what the General Counsel and my colleagues would think of it. That saving would be substantial, in my opinion, if we ceded as much as we could. We

could look into it and submit something, but I think it is so speculative that we cannot give you anything that would be an honest answer.

DISTRIBUTION OF POSITIONS BY ORGANIZATIONAL UNIT

Mr. FOGARTY. In your break-down on table 1, you have "Office of General Counsel," 992 positions, and 417 under the Board. Is that ratio between the two going up or down in the last 2 years?

Mr. HERZOG. It stays about the same. I believe The General Counsel has about 70 percent of the staff, because he has the field staff. The actual jobs would be in the justification statement. The very large Division of Administration, formerly under the General Counsel, was swung over to the Board members' side some time during calendar 1950. That, of course, does represent more than half of the employees on the Board members' side. That is simply, for purposes of this committee a bookkeeping item. The whole division was moved over.

FURTHER EXPLANATION OF CASE-LOAD INCREASES

Mr. DENTON. Do you have any record showing the case load from the time the Wagner Act was adopted to the present time?

Mr. HERZOG. It is very easy to submit that. When we put something in last year it ran back quite a few years. I doubt that it went back to 1935.

Mr. DENTON. The reason I asked that was because on the committee print in 1949 after the Taft-Hartley law was in operation your appropriations doubled and remained that way ever since. What I wanted to find out was if that was due to an increased case load.

Mr. HERZOG. I do not have the figures in front of me, but my memory tells me that the highest case load the Board ever had in the Wagner period was about 10,000 cases. It usually ran around 9,000 a year. That, of course, was limited to unfair labor practice cases against employers—the equivalent of today's CA cases—and election cases filed almost entirely by labor organizations and employees, which are today's RC cases.

In addition to the union shop cases, which accounted recently for 5,000 or 6,000 a year, the Taft-Hartley Act added cases which were characterized as CB, CC, and CD. These are unfair labor practices against unions, which represent approximately 20 percent of the C cases filed today. Also added were those cases which we now call RM and RD on the election case side: Employer petitions, which were quite difficult to file under the Wagner Act, and petitions for decertification. I think these RM and RD cases would total about 10 percent of the R's.

Mr. DENTON. Your case load has gone up from 9,000 to 10,000 a year.

Mr. HERZOG. We ought to eliminate in all cases union shop elections. They are so completely out today that we think the case load will run from 16,000 to 17,000.

Mr. DENTON. That is, your work has just about doubled?

Mr. HERZOG. And if you want to include union shop elections it got up to around 22,000 recently.

Mr. DENTON. And that has accounted for the doubling of your expenses?

Mr. HERZOG. Added work, plus the fact that certain cases, secondary boycott and jurisdictional dispute cases, require priority treatment and mean added expense. Then there is the fact that in administering a new statute litigation becomes more expensive.

Mr. BOTT. The cost of living and cost of travel has gone up and there were two pay increases since I have been in Washington in the last 4 years. It is not only case load which has about doubled, but the cost of salaries and miscellaneous expenses must be accounted for and the increase in the case load is not only because of the Taft-Hartley law, because the R cases have doubled, too, and these are basically Wagner Act cases.

Mr. DENTON. Why should they be doubled. I should think that question would be pretty well settled by now?

Mr. BOTT. Expanding industry, with 61,000,000 people employed as against 45,000,000 or less, during the Wagner Act period. There are more elections to hold.

Mr. DENTON. Most industries have unions now and that should be getting stationary.

Mr. BOTT. It will, I think, some day but charts and lines of cases will go down to zero. It may not be in our lifetime. Basic industry is organized but as steel and copper expand and as electrical energy expands, new unions and employees come into industry.

Mr. DENTON. Do they bring new employees in?

Mr. BOTT. A new plant opened up by General Electric tomorrow in a certain city of the United States, the company would not recognize the union until an election was held in that particular plant.

Mr. DENTON. Off the record.

(Discussion off the record.)

Mr. FOGARTY. On the record. Do you have any other statement to make, Mr. Herzog?

Mr. HERZOG. I do not know about my colleagues, but I do not believe I have.

Mr. FOGARTY. Do you wish to speak, Mr. Houston?

Mr. HOUSTON. In my opinion, I think the Chairman has given a very fair and accurate statement on the situation as it confronts the Board today and as to what we should have to do a reasonably good job in fiscal 1953.

Mr. MURDOCK. I have nothing to add.

Mr. FOGARTY. Thank you very much, Mr. Herzog.

Mr. HOUSTON. I would like to say for the Board that we, as always, appreciate the gracious reception we get from this committee.

Mr. FOGARTY. As usual, you have given a good factual statement for the benefit of the committee, Mr. Herzog.

Mr. HERZOG. Thank you, sir.

95263—52——7

MONDAY, FEBRUARY 18, 1952.

VOCATIONAL REHABILITATION

WITNESS

HON. JOHN R. MURDOCK, A REPRESENTATIVE IN CONGRESS FROM THE STATE OF ARIZONA

Mr. FOGARTY. The committee will come to order. The committee has before it this morning Congressman Murdock of Arizona.

Do you have a statement for the committee, Mr. Congressman?

Mr. MURDOCK. Mr. Chairman, I would like to speak in behalf of the appropriation for the vocational rehabilitation work program which is carried out in cooperation with State programs. I know how much this program has meant to the State of Arizona, and how many people have benefited from it. Not only have those individuals benefited, but the community and the country as a whole have also benefited. From a state of dependency, many individuals have been made self-supporting and have been enabled to earn good salaries. The tangible and intangible benefits are too numerous to be cited at this point, but I would like to include with my statement some facts pertaining to our Arizona program, as these facts support my contention that the cost of the program is more than offset by the returns from the program.

During the fiscal year July 1, 1950 to June 30, 1951, 215 disabled persons were rehabilitated in 126 different occupations ranging from rug weaver to teacher, for the girls and women, and from piano tuner to chemist, for the boys and men. These disabled persons were vocationally handicapped by various types of disabilities such as blindness, deafness, hard of hearing, amputations, orthopedic deformities, arrested tuberculosis, cardiac, and other miscellaneous physical or mental handicaps.

Of this group 29 were taken off relief. They had been receiving public relief amounting to $22,680 per year at an average cost of $780 per person. All were unemployed when they applied for rehabilitation services. This group of 29 after receiving rehabilitation services, costing $10,527 for case services, or an average cost of $363 per person, were earning $59,812 annually, or an average wage of $2,028 per person and are self-supporting. Through this service, their economic condition was changed from a public charge to that of a taxpayer.

In addition to the above 29 persons taken off relief, 5 persons were receiving public relief amounting to $4,080, or an average cost of $816 per person. This group of five persons after receiving rehabilitation services costing $1,580 for case services, or an average cost of $316 per person, were earning $5,200, or an average wage of $1,040 per annum to make them partially self-supporting. Later, two of these persons, due to automobile accident and illness had to be given additional welfare assistance.

To state the benefits of this program briefly, 210 have become independent. Practically all were unemployed when inducted. The total case service costs for this group amounted to $47,367. After placement in various jobs, 207 persons were earning a total sum of $414,856 annually or an average wage of $2,004 per person. The other

three were housewives—for whom no earnings are shown but who through physical restoration can now take care of their family household duties, thereby eliminating further financial assistance. The average age of this group is 35.4 years. They have a conservative work expectancy of 24.6 years. With average annual earnings of $414,856 they will earn in this period, over $10 million. It is a demonstrated fact that the average rehabilitant will repay the cost of rehabilitation in taxes at least 10 times. It is in most cases a one-time investment and not a recurring expenditure.

On June 30, 1951, 443 active cases were receiving various rehabilitation services. In addition, there were 367 cases that had not been fully interviewed, counseled, et cetera, because of lack of personnel and funds.

That was the thing I came here chiefly to say, Mr. Chairman.

Mr. FOGARTY. At that point, Congressman Murdock, I want to say that the splendid work being done by your people in Arizona is an example of what is being done in almost every State in the Union. I think it is one of the best programs we have. From the standpoint of appropriated dollars, it has been testified many times by the people in charge of this agency that the national economy is benefited to the extent of about $10 for every $1 that we appropriate.

Mr. MURDOCK. I can readily believe that, because it is shown here through reliable testimony of Harry Bene in whom I have the greatest confidence.

I would like to say one thing about the program of apprenticeship among the veterans. I was greatly distressed when I found a reduction in personnel had caused the dropping-out of one in Arizona. I do not know what can be done about it. I know certain reductions have to be made but I just wanted to point out this fact: Because of the climate of Arizona, we had an unusually great influx of veterans. We had some of the largest training camps, airfields and that sort of thing in the State of Arizona during the Second World War. Men were trained from every State in the Union. We had some British fliers and some Chinese trained around Phoenix and Tucson. All of those boys seemed to want to come back. For a while, when they were getting so much per month, when they were receiving their pay, they could come out and look for a job but the case load of unemployed veterans is really pretty heavy and it is unduly heavy when you consider the population of the State.

The State federation of labor, meeting at Flagstaff, passed certain resolutions such as resolution No. 33, which can go in the record, in which they endorse these two programs and I want to add my word to them.

(The resolution referred to above is as follows:)

Whereas the economic welfare of labor groups and the individual members thereof has been advanced by means of greater skills and competence, and

Whereas this development of skills is in great part due to the establishment of sound apprenticeship systems by many Arizona local unions jointly with local chapters of employers' associations, and

Whereas these apprenticeship systems were made effective by the devoted and untiring efforts of representatives of the Bureau of Apprenticeship, United States Department of Labor, in Arizona; Now, therefore, be it

Resolved, That the Arizona State Federation of Labor, assembled in its fortieth annual convention at Flagstaff, Ariz., this 23d, 24th, and 25th days of August 1951, does hereby extend to Maurice J. Tobin, Secretary of Labor, and

William F. Patterson, Director of the Bureau of Apprenticeship, United States Department of Labor, this expression of commendation for public service well done; and be it further

Resolved, That this convention orders copies of this resolution transmitted to Secretary Tobin, Director Patterson, Governor Pyle, and each member of Arizona's delegation in Congress.

Children's Bureau and Education of Children of Migratory Workers

WITNESS

MRS. ADA BARNETT STOUGH, EXECUTIVE DIRECTOR, THE AMERICAN PARENTS COMMITTEE

Mr. Fogarty. The committee has before it this morning, Mrs. Ada Barnett Stough, executive director of the American Parents Committee, located in Washington, D. C.

Mrs. Stough. I am Ada Barnett Stough, executive director of the American Parents Committee, Inc. The organization I represent is a nonprofit, child-welfare committee working for more and better schools and for adequate health and social-welfare services for the Nation's children. Our chairman, George J. Hecht, was the founder of the Welfare Council of New York City and its secretary for 20 years. For the past 25 years, he has been the publisher of Parent's magazine which now has a national monthly circulation of 1¼ million. I am filing with this statement a list of the names of those who serve on the board of directors and as members of the National Council of the American Parents Committee.

We come before you today to ask that you appropriate to the Children's Bureau $30 million for grants-in-aid for maternal and child health, crippled children and child-welfare services. We also urge you to appropriate the full $1,587,000 requested in the President's budget for the administration of the Bureau and for development of services and dissemination of information. We are aware, as we know you are, that the request in this year's budget is some $11,500,000 short of the amount which the Congress, after extensive hearings, authorized in the 1950 amendments to the Social Security Act.

If we have an opportunity to appear before you in future years, we shall urge you, as we have done before, to appropriate the total authorized amount, or $41,500,000 for the three grants-in-aid administered by the Children's Bureau. Children's needs cannot be put in the deep freeze and brought out only when we are in a position to give them some attention—service to children can wait only so long. However, this particular year we are aware of some of the difficulties the Congress is facing. You must provide for an adequate defense against possible aggression, you must provide other countries with help in building a system of mutual security. Yet, you as individual Congressmen, must go home in an election year to face a constituency which is tired of paying taxes—a constituency which will challenge you to justify and defend every tax dollar you have voted. We sympathize with the need for economy in our national budget, but we want it on the record that we believe economy in services for children can go no further than it has in the recommendations of the President's budget.

Apparently there is agreement by almost everyone that expenditures for national defense must have priority in these critical times, but we believe expenditures for defense should be both for short-term and long-term security. We must make our country strong for a long, long uncertain period ahead. The strength of the United States against the U. S. S. R. and its satellites can never be in the sheer number of men and women we can throw into our defense effort. Our superiority must be in a higher qualitative strength based on the full utilization of both our people and our material resources.

Today's children and those yet unborn are a strong component of that kind of strength. Because we believe that so strongly, we urge you not to cut by one penny the proposed funds through which the Children's Bureau can help children to become leaders rather than invalids, wage earners rather than public charges. It is true that we shall need planes, and ships, and guns and ammunition—you are being asked to appropriate billions for them. We will also need healthy, well-educated men as soldiers and sailors and flyers and marines—from where are they to come if not from today's nurseries and schoolrooms? The life line for every boy on a military post in any part of the world is the production line back home; and the children we are discussing today are the engineers and the mechanics, the steel workers, the munition workers, to say nothing of the statesmen of tomorrow. Dollars spent on these children are not Government extravagances, they are both investments and dividends, for what will it profit us to arm to the teeth if the inner fabric of our country is allowed to weaken and deteriorate.

We recognize that the Children's Bureau is only one of the several Government agencies dealing with the well-being of the child, but we believe the work it has done and is doing is basic to all the rest. We are not advocating that child-health work be increasingly the responsibility of the Federal Government. A look at the statistics will prove that is not the case, that States are more and more assuming a larger share of the expense, but the Federal Government should continue to help wipe out the inequalities in child-health services, due to the great differences in the financial resources among the States. We can be critical of the Children's Bureau, and we often are. However, our differences of opinion are usually over their sins of omission rather than commission and often they come back at us and say that what we want takes more money than they have to spend.

To be specific, the American Parents Committee would like to see the Bureau in a position to take some bold imaginative leadership in tackling the disturbing subject of juvenile delinquency. We would like to see much more research on rearing and training children so that we mothers, and doctors and nurses and professional workers with children could be advised about the right way of dealing with early problems common to children and young people. I, personally, was struck by the attitude on "thumb sucking" in the new edition of Infant Care. Both of our teen-age children were reared according to earlier editions of that book, and I couldn't help but wonder how many neuroses we may have created in our young son by putting on thumb guards and bitter medicine when he was at the thumb-sucking age. There are many more serious questions about child rear-

ing to which we do not yet have an answer. Who knows what might happen to humanity if we applied to child research the same boldness with which we approached the Manhattan project.

Figures on the selective service for the past 16 months obtained from the Department of the Army, show that if 30 men were called by a draft board, 11 would be sent home as unfit for Army service. Had the Children's Bureau in the past decade been able to do more well-rounded work and research the picture today might be quite different.

But rather than lament the past let us discuss what we have to count on today, and what we may have to count out.

First of all—we have more children. In 1951 we had the highest birth rate in our Nation's history and the number of children of school age has increased by more than 1½ million in the last 10 years.

While the number of children in the country has increased so also has the cost of taking care of them. In terms of Children's Bureau expenses two major factors are the salaries of professional personnel (that is, the doctors, nurses, etc.) and the cost of hospital care. Between 1946 and 1950 there was a 66-percent increase in expenses per patient per day in hospitals in the country as a whole. Salaries for State health department personnel and public health nurses has increased somewhere between 35 and 44 percent. All of that means that much less can be done with the dollars appropriated by the States and the Federal Government for the work that needs to be done with children.

You know of the great progress that has been made under the maternal and child health program of the Children's Bureau in bringing down the mortality rate; in 1915, 100 babies died for every 1,000 babies born—today only 29 of each 1,000 die. That average is a national one however, and in many places such as the southeast and the southwest, the figure is twice that high. Causes of death associated with premature births are still responsible for a third of the infant deaths. More research is needed to find out what causes premature births and what we can do to keep premature babies alive and help them to develop normally.

One of the very important parts of the work of the Children's Bureau, as you know, is the aid it gives to the States for work with crippled children. The number of children classified as "crippled" was estimated by the American Association of Social Workers in its 1951 Year Book to be 5,867,000. In the light of that figure, the conclusions of the Twelfth Annual Congress of Industrial Health, held in Pittsburgh recently, are significant. Some of the findings of the Congress, according to Dr. Howard A. Rusk, M. D., reporting in the January 20, 1952, New York Times, were—

> The achievement of our defense aims will depend upon increased production. Increased production depends upon our manpower; increased manpower depends on health. Under our present plans, 2,500,000 more workers will be needed this year in defense work. A higher percentage of the extra workers must come from women, older and retired workers and handicapped persons.

Practically all States are doing something toward rehabilitating handicapped children, through grants-in-aid from the Children's Bureau, but last year it was estimated that only about 215,000 were receiving such services.

There are over 182,000 children who are victims of cerebral palsy according to Karl K. Van Meter, executive director of United Cerebral Palsy, Inc. A high percentage of such victims can be trained to live useful lives but cost of treatment is so high that only about 8 percent of the 182,000 are now receiving public or private treatment. Only about a dozen States have been able to set up any kind of public facilities for the necessary medical, social and psychological services.

The number of children suffering from epilepsy has been estimated at from 200,000 to 300,000. For the past few years, we have been reading remarkable stories of epileptic victims who have been returned to normal living through advances in the use of drugs to control seizures. But that number is all too few. In far too many communities, the pitiful epileptic is an object of shame in the eyes of his family and the community doctor knows little or nothing of the newly discovered techniques for treating him.

Approximately 500,000 children are handicapped by the damaging effects of rheumatic fever. Dr. Frederick J. Lewy, assistant medical director, of the American Heart Association has provided us with significant figures pertaining to one thorough study done by Dr. Katherine D. Brownell in the lower East Side of New York City. It was found there that out of every 1,000 students in elementary and junior high schools, over 15 percent were verified or suspected heart cases. Private care was being given 41 percent of these children, 52 percent of them were under public or clinic care. Fortunate were the 52 percent who could get clinical care in New York City. In many states such care would not be available.

More than 3 million children are deficient in hearing, about one million of which are so seriously defective as to need very special treatment, yet, only 10 States can provide any public help.

The factors which make for emotional stability are the concern of the Bureau's program of child welfare. Morris L. Ernst, with an associate, recently interviewed a great many former American Communists in an attempt to find out why they joined the Communist Party. I would like to quote to you just three significant statements about that research from a speech he made to the New York Herald Tribune Forum last fall.

> * * * The homes from which young Communists come indicate an inordinate incidence of suicides and desertions. * * * The ostracized and those with physical and obvious emotional disabilities find the Communist Party peculiarly inviting. * * * From all I have found I would draw only one conclusion: We are maintaining a stupid and self-defeating posture so long as we fail to realize that in our culture Communism is a psychological movement rather than an economic one * * *

Now, how do we prevent the psychological disturbances which lead young people to join the Communists, or to smoke marijuana or sniff heroin, or to commit murder and jump off bridges? That is a real question. We believe part of the answer is in the hands of the Children's Bureau. Each time a dollar of its appropriations goes to help put a homeless neglected child in a satisfactory foster home, we have helped one child over an emotional hurdle. Each time a disturbed child is brought under the influence of a trained child guidance worker, we may be helping to turn a probable delinquent into a stable citizen. We need more foster home care, however, we need many more people trained to help children. Some of the Children's Bureau grant

for Child Welfare will go toward providing such training in accredited colleges and universities; a great deal more could be used for that purpose.

Appended to my testimony is a chart showing what has happened to the Children's Bureau appropriations for grants-in-aid since the 1950 amendments to the Social Security Act. One look at it will show that this year's request is almost 25 percent below what Congress in 1950 believed would be necessary. We regret that it must be so low. We want you to know that we believe it to be an irreducible minimum. In considering this appropriation along with all the others, we respectfully ask you to keep in mind these questions:

Shall we sentence the crippled children of the country to a life time in beds and wheel chairs, perhaps as a drain on our economy, or shall we help to treat and train them to become a part of our Nation's resources?

Shall we leave the homeless, neglected, emotionally sick children to wallow in their difficulties, or shall we try to help them become the kind of stable citizens we will need in the crucial years ahead?

Shall we as a Nation be as concerned about the welfare of children as we are about the welfare of cattle and hogs?

Shall we spend as much on counseling parents and doctors and welfare workers as we do in counseling farmers?

The American Parents Committee believes that it is wise to invest in the greatest resource we have—the defense worker, the soldier, and the citizen of tomorrow. The human resources we build will not have to be put in mothballs or sold as scrap when the emergency is over. They are also the backbone of our Nation in time of peace.

Grants-in-aid appropriations for the Children's Bureau

	Authorized in Social Security Act	Authorized by 1950 amendments	Appropriated, 1950–51	Requested, 1951–52	Appropriated, 1951–52	Requesting, 1953–54
Maternal and child health	$11,000,000	$16,500,000	$13,200,000	$13,120,000	$12,524,000	$12,746,000
Crippled children	7,500,000	15,000,000	9,975,000	11,927,000	11,385,000	11,749,000
Child-welfare services	3,500,000	10,000,000	7,075,000	7,951,800	7,590,400	5,505,000
Total	22,000,000	41,500,000	20,250,000	32,998,800	31,500,000	30,000,000

There is one subject I have not mentioned in my testimony, and that is the problem of the migrant child, because, as I understand, the Children's Bureau has no plans for migrants. That is why I would like to say just a word or two and submit, if I may, a one-page statement about the $181,000 contained in the Office of Education budget for the beginning of an educational program for migrant children. After I found it in the President's budget and also in the President's message, I went over to the Office of Education to see what they had in mind. To me their plans make sense.

Mr. FOGARTY. They have already testified in regard to the need for that program.

Mrs. STOUGH. Under the Office of Education proposals, there will be an attempt to get interstate agreements and to develop instructional materials which a child can take them along with him as he goes from

school to school. I want you to know that we were very much behind that proposal and much in favor of the appropriation.

Mr. FOGARTY. We will include the statement in the record.

(The statement referred to is as follows:)

STATEMENT OF THE AMERICAN PARENTS COMMITTEE

The American Parents Committee urges your approval of the President's budget sequest for the sum of $181,000 to enable the United States Office of Education to cooperate with educational institutions and State educational agencies in developing an action program for the education of the children of migratory workers. The President's Commission on Migratory Labor gathered and published much information on the entire subject of migratory agricultural workers. One has only to read a part of its report to sense the complexity of the economic, legal, social, and international problems involved. We believe the most urgent and the most serious of the problems is the lack of opportunity for migrant children to obtain an education. The exact number of such children is not known but it is estimated at over a million. There have been enough studies of some of them to establish the fact that they have less education than any other group in the whole Nation. They are, for the most part, children of illiterates, and under present conditions they can have little hope of ever knowing more, earning more, or living better than their parents.

Because they are in one State only a few months of a year or less, and often in one community only a few weeks these children are seldom considered a part of any community. All over the country they are victims of a great conflict: as migrants they have a nonlocal character, while the schools are essentially local institutions run for local children, supported by local funds and controlled by a local authority. Most communities are having difficulty in raising money to build necessary schools and to hire the teachers required to educate their resident children. It is easy to understand why they do nothing to encourage the enrollment of the nomad who will be in the community only a short time. If the child should come to school how much can he profit by suddenly being in a class where he knows no one and has no idea of the lessons that have gone before.

A child of a migrant family whose home base is in a State like Florida or Texas may go to school for the few winter months that he is in that State, but he is more likely not to—first because he may be working in truck gardens or elsewhere, and second because he is so retarded in his education that he cannot keep up with a class. In the early spring he again starts with his family on the northward trek. Few States make any serious attempt to get the children of traveling workers into their schools, although there have been a few wo were willing to experiment. All the experiments demonstrated that something can be done for migrant children in the way of education.

The problem has to be approached from two angles. First, some interstate and regional agreements and plans must be worked out by the educational agencies in the various contiguous States in which a migrant child is likely to be during the course of a year. This can be done only if the Federal Government takes the leadership in bringing the agencies together and encourages them to make adjustments in curriculum and to develop special teaching materials and methods for instructing the child who is moving about. Second, there must be willingness and cooperation on the part of State departments of education and selected non-Federal agencies not only in developing plans and training teachers but also in carrying out the program. They must agree upon and use one workable system of records and reports to make it easy for the child to attend many schools and for the schools to keep in touch with many children. They must develop, agree upon, and furnish easy-to-use work books or other instructional devices which a child can complete in one school or take along to be completed at the next place where his parents are to be employed. They must create in their schools an attitude which would lead to putting out the "Welcome" mat instead of closing the door against migrant children.

From what we learn of the specific proposal of the Office of Education, it seems to us that it is a wise approach to the two important aspects of the problem. If we can somehow open the door of educational opportunity ever so little to these nomad children, we will have made a beginning. We hope you will make this first step possible.

Children's Bureau

Mr. Fogarty. Mrs. Margaret Coffin has presented a statement on behalf of the National Board of the YWCA. Since this deals with the Children's Bureau that has just been under discussion, we shall insert the statement at this point in the record.

(The statement is as follows:)

Statement of Mrs. Margaret Coffin for the Subcommittee on Labor and Federal Security of the House Appropriations Committee

On behalf of the National Board of the YWCA, I urge you to appropriate an adequate sum for the Children's Bureau.

My organization has been interested in the Bureau since its beginning. It is quite natural that, since its members are women and girls, the YWCA has a special interest in children.

We feel that in the past the Children's Bureau has rendered a valuable service to the country as a whole by its contributions to the welfare of children.

Since our defense needs are drawing an increasing number of women away from their homes, the child-welfare services provided by the Children's Bureau are more essential than ever.

The great increase in the number of children has put a greater demand on the services of the bureau. This increase, coupled with the rise in cost of services, has dangerously stretched the budget of the bureau.

Because the bureau provides so many essential services to children, because children are the foundation for our country's future, we ask you to appropriate the full amount asked for in the President's budget.

The National Consumers' League and the Department of United Church Women of the National Council of the Churches of Christ of the U. S. A. have asked me to express their interests in this matter, and to urge you to support an adequate appropriation for the Children's Bureau.

Education of Children of Migratory Workers

WITNESS

GERTRUDE FOLKS ZIMAND, GENERAL SECRETARY, NATIONAL CHILD LABOR COMMITTEE

Mr. Fogarty. We now have Miss Zimand from the Child Labor Committee. What is your position with that organization?

Miss Zimand. I am the general secretary of the Child Labor Committee.

Mr. Fogarty. Do you have a statement for the committee?

Miss Zimand. Yes, sir.

I have a statement which I have made brief and tried to cut a little. Most of this is for the record.

We deeply appreciate this chance to appear before your committee. We were here to speak on one item in the budget for the United States Office of Education. That is the $181,000 to enable the Office to work in the field of the education of children of migrant workers.

I would like to say by way of preface that the National Child Labor Committee is a voluntary organization founded in 1904 and incorporated by Act of Congress in 1907. It has concerned itself with the problems of agricultural migrant children and the role of child welfare almost since its inception.

I have included back here a list of its many studies in this field as an indication of its background and knowledge.

My statement will cover three points: The gravity of the problem of schooling for migrant children; its complexity and the need for specialized study and planning, and third, the responsibility of the Federal Government in this field.

First, the children of migratory agricultural workers, without question, constitute the most educationally neglected group in this country.

Studies of migrant farm labor by official and voluntary agencies have uniformly revealed a lack of schooling among migrant children that is shocking. The most recent survey made by the National Child Labor Committee was conducted in Colorado in 1950 under the direction of Professor Howard E. Thomas of the Department of Rural Sociology of Cornell University, who received leave of absence to come on our staff for this purpose.

The findings of this study are similar to those of many others and are cited merely as one illustration of the almost incredible lack of schooling among migrant children.

Data on 354 school-age children, 7 to 16 years, in 262 migrant families revealed that, 27 children, 8 percent, had never been in school. Eight of them were over 10 years of age. Ninety-one children, 26 percent, had left school permanently.

Most of the children who had left school, including the 14, 15 and 16-year olds, had gone beyond the first or second grades.

Eighty-two percent of all school-age children were retarded from 1 to 8 years.

Practically all children 11 years of age and over were retarded 3 years or more.

I am filing, without presenting, further data from this and other studies, and I have appended here excerpts from similar studies in six or seven other States.

No one knows how many children there are in migrant farm families. Estimates vary from 250,000 to nearly half a million. Whatever the exact figure may be, the important fact is that many thousands of our boys and girls are growing up with practically no education. Both for their own sakes as children growing up in this land which cherishes the individual, and for the sake of the Nation in which they will soon be expected to exercise intelligently the rights and the duties of adult citizenship—including service in the Army—these little nomads of the crops should be provided the opportunities for education which America seeks to give to all within its borders.

The problem is not only serious, it is complex, one which requires specialized study and planning.

Expert assistance is urgently needed from the Office of Education, the agency of the Federal Government which was created expressly to study educational problems and to "promote the cause of education throughout the country."

Since 1946 the National Child Labor Committee has urged the establishment in the Office of Education of a specialized unit to study and advise on this program. In 1951 a conference on the education of migrant children, called by the United States Office of Education and attended by representatives from educational institutions and agencies in many parts of the country, unanimously recommended that the Office of Education should become active in this field. Heretofore, however, funds for this purpose have not been available to the Office of Education.

The National Child Labor Committee is especially gratified that, in recommending the inclusion of such an item this year, the President's budget states that it will enable the Office of Education to cooperate with educational institutions and State educational agencies in working out a program to meet the problem. This approach is basically very sound.

Close cooperation with State educational agencies and institutions is essential, both to find out the facts and to develop realistic and practical programs, for the problem differs radically in different States and even in different communities within the same State. A program must take into account many variable factors: The number of migrant children in a local area and the proportion they constitute of the regular school population; the length of time they remain in the community; whether they are "one-crop" migrants who spent a considerable part of the year in a fixed place of residence or whether they follow the crops for the greater portion of the year; their knowledge of the English language; their prior educational experience; the educational background of their parents; the degree to which they are retarded; and the attitude of the local community toward schooling for these "outsiders."

It follows that no one program or system of schooling for migrant children can be devised which will meet the needs of all communities, nor can a study of the situation in one or two areas indicate the type of approach needed elsewhere. Through utilization of the services of State educational institutions and departments, the Office of Education can carry on a more extensive inquiry than it could through its own resources. It can thus develop the basic factual data on which sound educational programs for migrant children, adapted to different conditions and circumstances, can be developed.

The education of migrant farm children is peculiarly a concern of the Federal Government. Many of these children are what might be called an "interstate" problem.

They spend the school year in two or three or even more different States. Studies of the needs of migrant children have emphasized the need for exploring the possibility of an interstate regional approach to the problem of their education, with the possibility of an interchange of school records and the development of a core curriculum in order to facilitate continuity in their schooling as they move from place to place.

The Congress has already expressed its intent that the children of migratory workers should be educated by its adoption in 1949 of an amendment to the Fair Labor Standards Act setting a 16-year-minimum age for work on commercial farms during school hours.

The Federal Government cannot require children to attend school; that is up to the States; but it has, in this law, removed the chief cause for nonattendance.

The strong efforts being made to enforce this law are making local communities more aware of their responsibility for the education of the children of workers who have come temporarily into their districts to help harvest the crops on which the economy of their area depends. But school authorities, while beginning to recognize their responsibilities, are groping for a solution of the difficult problems presented and are eager for advice and assistance. The Office of Education should be enabled to help them meet this problem, and we

therefore respectfully urge that the recommended appropriation of $181,000 for the Office of Education for this purpose be approved by your committee.

Mr. FOGARTY. Thank you very much, Miss Zimand.

(The full text of Miss Zimand's paper is as follows:)

STATEMENT BY GERTRUDE FOLKS ZIMAND, GENERAL SECRETARY NATIONAL CHILD LABOR COMMITTEE, NEW YORK, N. Y.

The National Child Labor Committee appreciates this opportunity to appear before your committee. We are here to speak on one item in the budget for the United States Office of Education. This is the relatively small but highly significant item of $181,000 to enable the Office to cooperate with educational institutions and State educational agencies in developing plans for the education of children of migratory workers.

The National Child Labor Committee is a voluntary organization founded in 1904 and incorporated by act of Congress in 1907. It has concerned itself with the problems of agricultural migrant children and rural child welfare almost since its inception. A list of its many studies in this field is attached as an indication of its background and knowledge in this field.

My statement is brief and covers three points:

1. The gravity of the problem.
2. Its complexity and the need for specialized study and planning.
3. The responsibility of the Federal Government in giving assistance on this problem.

I. The children of migratory agricultural workers without question constitute the most educationally neglected group in this country. Studies of migrant farm labor by official and voluntary agencies have uniformly revealed a lack of schooling among migrant children that is shocking. The most recent survey made by the National Child Labor Committee was conducted in Colorado in 1950 under the direction of Prof. Howard E. Thomas of the department of rural sociology of Cornell University. The findings of this study are similar to those of many others and are cited merely as one illustration of the almost incredible lack of schooling among migrant children.

Data on 354 school-age children (7–16 years) in 262 migrant families revealed that—

Twenty-seven children (8 percent) had never been in school. Eight of them were over 10 years of age.

Ninety-one other children (26 percent) had left school permanently.

Most of the children who had left school, including the 14-, 15-, and 16-year-olds, had not gone beyond the first or second grades.

Eighty-two percent of all school-age children were retarded from 1 to 8 years.

Practically all children 11 years of age and over were retarded 3 years or more.

I am filing without oral presentation, further data from this and other studies.

No one knows how many children there are in migrant farm families. Estimates vary from 250,000 to nearly half a million. Whatever the exact figure may be, the important fact is that many thousands of our boys and girls are growing up with practically no education. Both for their own sakes as children growing up in this land which cherishes the individual, and for the sake of the Nation in which they will soon be expected to exercise intelligently the rights and the duties of adult citizenship, these little nomads of the crops should be provided the opportunities for education which America seeks to give to all within its borders.

II. *The problem is not only serious, it is complex—one which requires specialized study and planning.* Expert assistance is urgently needed from the Office of Education—the agency of the Federal Government which was created expressly to study educational problems and to "promote the cause of education throughout the country."

Since 1946, the National Child Labor Committee has urged the establishment in the Office of Education of a specialized unit to study and advise on this problem. In June 1951, a conference on the education of migrant children, called by the United States Office of Education and attended by representatives from educational institutions and agencies in many parts of the country, unanimously recommended that the Office of Education should become active in this field.

Heretofore, however, funds for this purpose have not been available to the Office of Education.

The National Child Labor Committee is especially gratified that, in recommending the inclusion of such an item this year, the President's budget states that it will enable the Office of Education to cooperate with educational institutions and State educational agencies in working out a program to meet the problem. This approach is basically very sound. Close cooperation with State educational agencies and institutions is essential—both to find out the facts and to develop realistic and practical programs. For the problem differs radically in different States and even in different communities within the same State. A program must take into account many variable factors: the number of migrant children in a local area and the proportion they constitute of the regular school population; the length of time they remain in the community; whether they are "one crop" migrants who spend a considerable part of the year in a fixed place of residence or whether they follow the crops for the greater portion of the year; their knowledge of the English language; their prior educational experience; the educational background of their parents; the degree to which they are retarded; and the attitude of the local community toward schooling for these "outsiders."

It follows that no one "program" or system of schooling for migrant children can be devised which will meet the needs of all communities, nor can a study of the situation in one or two areas indicate the type of approach needed elsewhere. Through utilization of the services of State educational institutions and departments, the Office of Education can carry on a more extensive inquiry than it could through its own resources. It can thus develop the basic factual data on which sound educational programs for migrant children, adapted to different conditions and circumstances, can be developed.

III. *The education of migrant farm children is peculiarly a concern of the Federal Government.* Many of these children are what might be called an "interstate" problem. They spend the school year in two or three or even more different States. Studies of the needs of migrant children have emphasized the need for exploring the possibility of an interstate regional approach to the problem of their education—with the possibility of an interchange of school records and the development of a core curriculum in order to facilitate continuity in their schooling as they move from place to place.

The Congress has already expressed its intent that the children of migratory workers should be in school by its adoption in 1949 of an amendment to the Fair Labor Standards Act setting a 16-year minimum age for work on commercial farms during school hours. The Federal Government cannot require their attendance at school but it has, in this law, removed the chief cause for nonattendance. The strong efforts being made to enforce this law are making local communities more aware of their responsibility for the education of the children of workers who have come temporarily into their districts to help harvest the crops on which the economy of their area depends. But school authorities, while beginning to recognize their responsibilities, are groping for a solution of the difficult problems presented and are eager for advice and assistance. The Office of Education should be enabled to help them meet this problem.

MAJOR STUDIES PUBLISHED BY THE NATIONAL CHILD LABOR COMMITTEE ON CHILD LABOR, EDUCATION, AND WELFARE AMONG CHILDREN OF FARM WORKERS

1909—Child Labor in Rural Kentucky
1914—People Who Go to Tomatoes (a study of 400 Maryland families)
1916—Child Labor in the Sugar-Beet Fields of Colorado
1917—Farmwork and Schools in Kentucky
1918—Farm Children in Oklahoma
1919—People who Go to Beets (Michigan)
1920—California the Golden
—Farm Labor vs. School Attendance
1921—Child Labor and Rural Tenancy
—Rural Child Welfare (West Virginia)
1923—Child Labor in the Sugar-Beet Fields of Michigan
1924—Children Working in the Sugar-Beet Fields of the North Platte Valley of Nebraska
1925—Child Labor Among Cotton Growers of Texas
—Children Working on Farms in Certain Sections of the Western Slope of Colorado

1925—Denver and Farm Labor Families
1926—Children Working in the Sugar-Beet Fields of Certain Districts of the South Platte Valley, Colorado
1928—Children Working on Farms in Certain Sections of Northern Colorado
1929—Child Labor in Agriculture and Farm Life in the Arkansas Valley of Colorado
1936—Pick for Your Supper (a study of child labor among migrants on the Pacific Coast)
—A Summer in the Country (New Jersey)
1940—Children in Strawberries (Mississippi Valley)
1941—Two Weeks in Berrien County (Michigan)
1942—Children Who Work on the Nation's Crops
1943—Cotton or School (Missouri)
1951—Migrant Farm Labor in Colorado

HIGH LIGHTS FROM OTHER STUDIES

I. A study by the National Child Labor Committee in 1940 among white migrant strawberry pickers in Arkansas and Kentucky showed that 36 percent of the children 7 through 15 years of age had not been to school a single day during the year preceding the inquiry. Those who had gone to school had attended an average of 86 days—a little over 4 months. Among the children 12 through 15 years of age, one-third had completed the second grade or less; one-half had completed the third grade or less. If the nonattendance record continued, these children would receive less schooling than their parents, for the parents of these young strawberry pickers had achieved a median grade of 4.4 (Children in Strawberries—National Child Labor Committee—1940).

II. Among 487 migrant children 6 through 15 years working in the winter harvest in Hidalgo County, Tex., in 1940–41, 224 were not enrolled in school.

	Number	Not enrolled	Percent
6 and 7 years	79	50	63.3
8 and 9 years	86	21	24.4
10 and 11 years	101	18	17.8
12 and 13 years	108	45	41.7
14 and 15 years	113	90	79.7
Total	487	224	

Sixty-nine percent of the migrant children who were enrolled did not enter school until after March 15; 32 percent withdrew before the first of April (The Work and Welfare of Children of Agricultural Laborers in Hidalgo County, Tex.—U. S. Children's Bureau, 1943).

III. "The education of the Texas-Mexican adult is extremely inadequate according to the sample studied in Wisconsin. About two-fifths had no education whatever. Only 26 of a total of 184 adults from whom this information was obtained had had more than 4 years of schooling, which is usually considered to be the dividing line between literacy and illiteracy. It is imperative that the children of these people be provided with a starting point more equal to other children than their parents had in their generation. Most of the family heads and their wives are, by standard classification, illiterate" (Migratory Agricultural Workers in Wisconsin—Governor's Commission on Human Rights, Madison, June 1950).

IV. A study of 246 fourth, fifth, and sixth-grade children of seasonal agricultural workers in the San Joaquin Valley revealed that "their educational status is distinctly below the level of other elementary school children throughout of the State. * * * In general, the children are overage for their grades. * * * Teachers report that many children have scholastic and social adjustment problems. Few records are available of children's educational history or of their physical and social development. Many children are new to the community and new to the State and thus few children have had a continuous educational program in one school" (Agricultural Labor in the San Joaquin Valley—The Governor's Committee to Survey the Agricultural Labor Resources of the San Joaquin Valley, Sacramento, Calif., March 1951).

V. "In this setting (migrant farm labor) where—according to numerous surveys—only a minority is literate, (that is, have finished the fourth grade),

where many have not finished the second grade and some report that whenever they do enroll they are always put into the first grade, it is exciting to witness the response to the few schools run by (church groups). Children who do not have to work or to take care of younger brothers or sisters eagerly attend school. In many instances parents whose need of the added income that their children might contribute is desperate will still encourage these children to attend school rather than to work in the fields. But why should the Federal Government, the State government and the county school systems leave this job to the limited efforts of church groups? Granted, they do get in this way some needed and welcome interpretation of things religious. Yet, this does not excuse a policy that perpetuates an illiterate migrant population, or even—according to some studies—causes its retrogression." (Minnesota and Her Migratory Workers—published by the Migrant Committee of the Minnesota Council of Churches and the Home Missions Council of North America—1950).

VI. A study of the age and grade level of 157 children among 58 migrant beet worker's families revealed that 56 percent of the children of school age were retarded and that 1 child out of 3 was retarded 3 years or more. For children over 9 years retardation was even greater, and among the 15-year-olds, 87 were retarded. (The Education of Children of Spanish-Speaking Migrants in Michigan—by Edgar G. Johnston, University of Michigan, 1946).

VII. A study of 214 migrant children in New York—southern negroes who come up from Florida—indicated that 5 percent had not attended school at all during the school year 1948–49, and an additional 18 percent had been in school for less than 5 months during this period. (A Study on the Educational Status of Migrant Children in Labor Camps of New York State During the Summer of 1949—by Prof. Howard E. Thomas, department of rural sociology, Cornell University).

School Attendance and Education of Migrant Children

(Excerpt from Migrant Farm Labor in Colorado—a study of migratory families published by National Child Labor Committee)

SCHOOL ATTENDANCE

There were 336 children of legal school age—i. e., between the ages of 7 and 16 years—in the 262 families interviewed. The distribution by age was remarkably uniform. Distribution by sex showed a majority of males: 90 females for each 100 males.

Since some of the information sought—such as school attendance, school leaving, and grade achievement—would be pertinent to the 16-year-olds, some of whom had been under 16 years during the school year just completed, it was decided to include them in the analysis of these factors. This added 41 children, making a total of 377 children 7 through 16 years of age.

Information on how many of these children were attending school was obtained by age for 354 of the 377 children. It was found that 236 were attending school and that 118 had left, or had never attended school. Among the 118 children out of school, there were 27 who had never been in school. These 27 children included 19 under 10 years of age and 8 who were 10 years of age or over. The 19 children under 10 years of age indicated they would like to go to school as did 21 others among the nonattenders. Twenty-three of the 41 children in the 16-year-age groups were out of school. Twenty-two of the 23 had gone no farther than the second grade.

Table 47.—*School attendance by age of children 7 through 16 years*

Age	Children			Age	Children		
	Total	Attending school	Not attending school		Total	Attending school	Not attending school
7	37	29	8	13	30	20	10
8	33	26	7	14	51	30	21
9	30	26	4	15	34	16	18
10	33	26	7	16	38	15	23
11	30	22	8				
12	38	26	12	Total	354	236	118

Data regarding ages at which children had first entered school were available for 354 children. These showed that about 75 percent had entered school before their eighth birthday. Fifteen percent of the youngsters did not enter until they were 8 or 9 years of age, and about 2½ percent were 10 or 11 years old when they first began school. Seventy-five of the children interviewed reported that they were not allowed in Texas schools under 8 years of age.

TABLE 48.—*Ages at which children 7 through 16 years began attending school*

Age at beginning school	Children		Age at beginning school	Children	
	Number	Percent		Number	Percent
Never attended	27	7.6	10 years	7	2.0
6 years	90	25.4	11 years	1	.3
7 years	175	49.4			
8 years	42	11.9	Total	354	100.0
9 years	12	3.4			

EXTENT OF RETARDATION

When the data for 372 children 7 through 16 years of age were analyzed by age and last grade completed (table 49), it was found that none of them, regardless of age, had gone beyond the fifth grade; that only 8 had completed the fifth grade, 9 the fourth grade, and 24 the third grade. The great majority of children 10 through 16 years had not gone farther than the first or second grade, and there were 24 children 8 years and over who had completed no grades.

In determining how many of these children of migrant families were of normal academic age and the extent of retardation among the remainder, a slight modification was made in the usual standard of measurement which assumes entry in the first grade at 7 years of age with promotion each year. Some States (including Colorado) do not require school attendance under 8 years, and where the required or permitted age is 7 years children frequently reach their seventh birthday too late in the school year for admission. Therefore, to allow for these factors, both 7 and 8 years were considered normal for the first grade, both 8 and 9 years for the second grade, and so on.

Table 49 indicates that, 372 children 7 through 16 years of age, only 46 seven- and eight-year-olds, 2 nine-year-olds, and 1 ten-year-old, had completed the grades normal for their age. One child—one in 372—was advanced beyond his years by one grade. This child was from an Anglo family which happened to be found in the sampling because his parents started "on our vacation. We heard about peaches; so we decided to stop and work a while to help with expenses and to get fruit for canning."

All the remaining children, except for 17 seven-year-olds who had either not entered school, or had not completed the first grade, were retarded academically from 1 to 8 years—a total of 306 retarded children or 82 percent. Retardation started with the 9-year-olds and became more marked in each higher-age group as the years of retardation accumulated for the large majority who failed to progress beyond the first or second grade. All but 4 of the 229 children 11 years of age and over were retarded 3 or more years.

These findings indicate with finality that praemtically the only children in Colorado migrant families who were not retarded in 1950 were the 7- and 8-year-olds in the first grade. This does not mean that these migrant children are less able to learn than other American children because of ethnic or geographic origin which makes them "different," as the prejudiced frequently claim. It simply means that no children can make normal educational progress unless they can attend school regularly and are given the opportunity, if they are second-generation Americans, to learn the language, the customs, and the culture of the country of which they are citizens.

95263—52——8

TABLE 49.—*Distribution of children 7 through 16 years by age and last grade completed*

Age	Last grade completed						
	0	1	2	3	4	5	Total
7 years	17	24	0				41
8 years	11	22	0	1			34
9 years	3	27	2	0	0		32
10 years	3	32	1	1	0	0	37
11 years		28	3	0	0	0	31
12 years		26	13	1	0	0	40
13 years	1	16	11	3	0	0	31
14 years	2	21	17	9	2	0	51
15 years	4	13	6	6	2	3	34
16 years		18	10	3	5	5	41
Total							372

CHILDREN PERMANENTLY OUT OF SCHOOL

Data on year of school leaving by grade achievement and by age were obtained for children who had left school permanently (tables 50, 51). The evidence in the previous section that migrant children have serious educational handicaps as a result of irregular school attendance, language difficulties, and other factors is confirmed by the fact that 82 out of 89 children, whose grade achievement could be determined, had completed two grades or less—most of them less—when they left school. A large number of them were 14-, 15-, and 16-year-old children. Only seven children had completed three to five grades and none had completed more than five grades. Eleven children could not give the year when they had last attended school but reported that they had completed no grades.

For 78 children who had left school permanently, data were obtained showing distribution by age in 1950 and by year of school last attended. More than half had left school recently, during the years 1948 to 1950, but it is evident from the findings in table 51 that 32 children (40 percent) had left school before they were 12 years old.

TABLE 50.—*Distribution of children who had left school by year last attended and grade achieved*

Last year attended	Highest grade achieved						
	None	1	2	3	4	5	Total
Year unknown	11						11
1950	1	7	1	1			10
1949	1	13	6		1		21
1948		17	5	2	2	1	27
1947	1	6	2				9
1946		4					4
1945		4					4
1944		2					2
1943							
1942		1					1
Total	14	54	14	3	3	1	89

TABLE 51.—*Distribution of children 10 through 16 years who had left school by age in 1950 and year last attended*

Last year attended	Age of children in 1950							
	10	11	12	13	14	15	16	Total
1950	2	2	1	1	1	1	2	10
1949		1	6	1	7	4	2	21
1948	2	2	1	3	5	4	10	27
1947			1	1	1	3	3	9
1946					1	2	1	4
1945					1	1	2	4
1944							2	2
1943								
1942							1	1
Total	4	5	9	6	16	15	23	78

TIME OF SCHOOL ENTRY IN 1949–50 SCHOOL YEAR

Information in the following sections on time of school entry in the fall of 1949, time of departure from school in the spring of 1950, absence during the school year 1949–50, and number of schools attended in 1949–50, was obtained for children 7 to 16 years of age who were reported to be school attendants. This group included 221 children. The replies indicated that slightly over half of these children entered school in Colorado before October 1, 1949. The proportion of these early starters who dropped out quickly because the family left Colorado was indeterminable. It was estimated by truant officers, school principals, and teachers that half would be a conservative estimate. Moreover, the remaining proportion would have had to leave the first school entered by early or mid-November when the families who had remained for the beet harvest returned home.

Few children entered school during the latter part of October. Parents indicated that "unless they begin at first, they (the children) get behind and drop out." This was also reported to be the case by superintendents of schools interviewed. "The general pattern is they enter school late, get behind, attend irregularly, and finally drop out altogether."

By November 15 many families were in places where they would reside for the winter and at this late date—between November 1 and November 15—nearly one in five children entered for the first time for a new year. Six children entered the latter part of November and twenty-two (10 percent of all children attending school) did not enter until after the 1st of December.

The finding, based on interviews, that over half of the children entered school before October 1, 1949, was questioned by some informed persons. One of the labor officials of a large sugar company, when asked about the time of departure of family groups, said: "Between 80 and 85 percent of recruited labor leaves before harvest. Our Spanish-American workers tend to start for home shortly after August in order to get back for cotton." This statement was supported by officials of other sugar companies and of the employment service.

TIME OF LEAVING SCHOOL IN 1949–50 SCHOOL YEAR

To obtain a more complete picture of time lost at either end of the 1949–50 school year, the school-leaving dates were correlated with the school-entry dates. All of the 220 children for whom this information was obtained stopped going to school before May 30 and 177 of them before April 15. From this correlation (table 52) it is clear that many of the early leavers in 1950 were also late starters in 1949. For example, of the 159 children who stopped school attendance between April 1 and 15, 1950, there were 67 who had not entered school until after October 1, 1949, and 46 of these had not entered until November or December. Nobody can deny that children who enter school from 1 to 3 months late in the fall and whose school finishes by April 15 have a very short school year by American standards of education and that normal school progress is impossible under such abnormal conditions. The 57 percent reported to be in school before October 1 is open to question in the opinion of the field staff. In addition to the statements by sugar-company officials regarding early departure of families,

grounds for doubt were the number of children seen in the fields after schools were open, the fears voiced by parents of legal action against them based on data given to the field staff, and opinions of truant officers, other school, health, and welfare officials and community leaders.

TABLE 52.—*Distribution of children by time of school entry in 1949 and time of leaving school in 1950*

Time of school entry in fall of 1949	Time of leaving school in 1950						
	Mar. 1 to 14	Mar. 15 to 31	Apr. 1 to 14	Apr. 15 to 30	May 1 to 29	Total	
						Number	Percent
	Number	*Number*	*Number*	*Number*	*Number*		
Before Oct. 1	5	10	92	4	15	126	57.3
Oct. 1 to 14	1		21			22	10.0
Oct. 15 to 31				3	1	4	1.8
Nov. 1 to 14	1	1	24	2	12	40	18.2
Nov. 15 to 30			5		1	6	2.7
Dec. 1 to 30			17		5	22	10.0
Total	7	11	159	9	34	220	100.0

NUMBER OF DAYS CHILDREN WERE ABSENT DURING 1949–50 SCHOOL YEAR

Fifteen percent of the children reported they had missed no school during their period of enrollment in 1949–50. These children were found in the San Luis Valley and in the Grand Junction area where the families did not move far between home and work. Most (30 of them) were from Anglo families and the remainder were from Spanish-American homes.

About 60 percent of the children were absent for periods of less than 15 days. About 14 percent missed between 15 and 35 days, and slightly over 10 percent missed over 35 days. These absences were for the period of enrollment and did not include time lost for late entry in the fall or early leaving in the spring.

REASONS GIVEN FOR ABSENCES

Two-thirds of all children reporting absences gave sickness as the cause. One in five frankly stated that he had to work. The remainder of the group had a wide range of reasons. The "sickness" seemed to be a "stock" excuse for absence in Colorado as many children who were found in the fields during late September and the first part of October by the field staff gave "sickness" as their excuse for not being in school. Several reported to the Spanish-American staff members that they "had been told" to report sickness as the cause of nonattendance at school.

TABLE 53.—*Number of days children 7 to 16 were absent during their period of enrollment, 1949–50 school year*

Days absent	Children	
	Number	Percent
None	[1] 33	15.0
Less than 15 days	135	61.0
Over 15 but less than 25	17	7.7
Over 25 but less than 35	13	5.9
Over 35 but less than 45	5	2.3
Over 45 but less than 55	7	3.2
Over 55 days	11	5.0
Total	221	100.0

[1] Residents of Colorado or neighboring States.

TABLE 54.—*Reasons given for absence from school*

Reasons for absence	Children	
	Number	Percent
Sickness	[1] 125	[1] 66.5
Had to work	38	20.2
Had to remain home and care for children while parents worked	4	2.1
Went on vacation	4	2.1
Family moved	3	1.6
School too crowded	3	1.6
Other	11	5.9
Total	188	100.0

[1] Figures probably too high since "sickness" was stock excuse for nonattendance given by children found in fields in September and October.

Mobility was undoubtedly an important factor in absence. Though slightly over half the children reported attendance at only one school during the school year, about 29 percent had attended two schools and 16 percent had been in three, four, or five different schools (table 55).

The effect of frequent transfers from one school to another on a child's emotional life, as well as on his educational progress, seemed to be either ignored or not even considered by some of the professional people interviewed. A number of superintendents, principals of schools, truant officers, and teachers, when questioned about this, doubted that constantly making new adjustments was a factor in nonattendance. Other professionals, however, were quick to point to mobility as a significant factor in causing migrant children to lose interest in attending school.

Other factors mentioned by Spanish-American parents who were willing to talk freely were differences of dress, manners of speech, and food habits, and limited skills in school games. Migrant children who had experienced the jibes and jeers of resident children because they were "different" probably felt like José, "I would rather stay home than go to that school."

TABLE 55.—*Number of schools attended by children 7 to 16 during 1949–50 school year*

Schools attended	Children	
	Number	Percent
1 school	122	55.2
2 schools	63	28.5
3 schools	20	9.0
4 schools	14	6.3
5 schools	2	1.0
Total	221	100.0

What parents said

When parents were asked whether their children attended school in Colorado, certain stock replies were usually given at first as reasons why children were not in school. According to these replies, children "had to stay home to take care of younger children," or their "earnings were needed" or they "didn't speak English," or they would "start school back home." One frequent reply, "you don't need education to be a beet worker," suggested coaching by contractors or crew leaders.

Nothing said in these first replies indicated that any parents had tried to send their children to school. It was not until the confidence of some parents was won by the Spanish-American staff members during interviews that a different picture of nonattendance emerged which was generally somewhat on the order of the following:

"Our children were sent to school. If the schools were not too crowded, or if the children were not sent home for other reasons, they would come home crying and begging us not to send them back. Why? Because the other children made them feel that they are different. Their clothes are not so clean. Sometimes the shoes are too big or worn out, and the other children laugh at them. Our food is not like the food of the Anglos and that makes the other children laugh at what our boys and girls have to eat. When the children have money to buy their meals at the school cafeteria, they do not know how to buy the food or maybe they do not know how to eat as the other children do. Then everybody laughs at the children. Often the food does not taste well to the children and when they have money with which to buy, they will not do so. But that is not all. Everybody laughs at them because they speak so funny. Then because they cannot understand easily, they are thought to be stupid. When this is told to the children, they are hurt and they cry. Our children do not play the Anglo games well. They stand by the side and are called names and made to feel ashamed. Even the Spanish children who live here all year round do as the Anglos and talk to our children as the children of the Anglos talk.

"Juan is the biggest boy in his class. Even the teacher thinks he is dumb. But believe me, he has never had a chance to go to school. So you see, we keep our children home, not to make them work, but because it is not so bad as seeing them come home crying."

What truant officers said

Unfortunately, what parents gave as reasons whether excuses or really for nonattendance of children at school is only part of the total situation. Truant officers had other explanations.

To assume that the problem is identical in each school district would be naive. However, there tended to be common characteristics everywhere. One of the first of these, pointed out by 10 truant officers in various school districts, was the difficulty of enforcing attendance in third-class districts—rural districts—in which children of migrants are found in greatest numbers during the periods when school is in operation.

Some of the statements regarding enforcement were:

"In third-class districts truant officers are a luxury budgets do not allow. Consequently, most school boards rely on a volunteer board member to do the enforcement job. Nonattendance of local children is generally solved by a phone call or by a 'passing visit' when 'I will speak to Joe next time I see him about his kids being absent.'"

"Attendance laws are not represented by generally known types of officers. That is, these people know the sheriff, or constable or State police, but they never heard of a truant officer and don't give a damn for him."

"The teachers or district superintendents do not feel it is their duty to act as law-enforcement personnel so they do little about reporting who among the migrant children miss school."

"Neither communities nor farmers feel any great responsibility to see that the kids of migrants are in school. In fact many people in the district would not appreciate our making those kids attend school. There is some feeling against the migrants. The farmers feel that their own children are corrupted and degraded by the contact with the migrant kids. Many of the people direct their resentment against the big companies and farmers who they charge are 'ruining the community' by importing migrant workers."

"If we were to force those kids to attend school, we would have to do it in opposition to the community, our friends, and the workers themselves. We are not prepared to force the community to take sides on this issue. It would be better if a program were set up to educate the parents and the community in the value of school attendance before enforcement is begun."

"We are not prepared to handle the problem which would ensue if we were to lock up the parents of migrant kids who do not go to school. Who would then take care of their families, for instance?"

"Most of these families come to Colorado with the idea of working the entire family. If they cannot do it, they will no longer come and they are needed here. Put pressure on them and they are off."

"More problems are created by bringing these migrants into school than by leaving them out. The tendency is to leave them alone and to maintain the status quo. It is difficult in rural areas to do otherwise, as the whole community is against the man who tries to do something more for his migrants' kids than others are doing."

It was the conclusion of the field staff that most of the truant officers reflected community sentiment regarding the question of school attendance of migrant children. Where the community felt that "migrants are dirty and undesirable citizens who have a lot of illegitimate children" or "did not know whether they are worth saving and wondered if we ought to let nature take its course," truant officers tended to give the problem as little attention as possible. However, in a few places where the community felt, "these people are a part of the American people and it is our obligation to improve their opportunities since they do for our State what we won't do for it ourselves," then the attitude of the truant officers was to "do our best to get and keep those kids in school."

What superintendents of schools said

Superintendents saw this complex situation from a slightly different viewpoint—that of the administrator. The comments of 13 superintendents were joined in presenting the following picture:

"The children are from 1 to 3 years behind in grade placement, as determined by standard tests. Most of our schools are not equipped to handle retarded youth. Most of the migrants of school age come to us for the several months in the fall giving no evidence of ever having been in school. This makes for difficult grade placement. With overcrowded facilities, overloads for teachers, irregular attendance and confusion of enrollment and attendance records, you will appreciate our hesitancy in requesting they be made to attend.

"Our compulsory education laws are difficult to enforce. Actually there are no teeth in them and those on the books are not for this day and age. When the things mentioned above are operative, the kids do not have a ghost of a chance; so they drop out early each year. Also, there is no State money to take care of extra attendance loads in the fall as our State general funds is distributed on the basis of the school census which is taken in the spring.

"What happens in a school suddenly confronted by twice as many students as are normally enrolled, you can well imagine." (Some superintendents stated that migrant children could attend rural schools as they were not overcrowded—that overcrowding was a problem mainly in nonrural centers.)

One superintendent frankly stated that it was his studied conclusion that "children of these Mexican beet workers are not the mental equals of our children. Their presence in the schools would retard all the other children and lower the mental progress of our own children."

In general, however, the field staff were impressed by the grasp most superintendents had of this confusing situation and their concern that steps should be taken to improve it. Though there were some who put the primary blame for irregular attendance on parents and whose idea of a compulsory education law with "teeth" in it was one that would have a "stiff penalty" for parents whose children were not in school as "these Spanish laborers should learn that they must follow our American way," the majority saw the problem in much broader terms than penalties for parents. There was general agreement that a stronger compulsory education law and attendance officers in all districts were basic needs, but beyond this was the problem of how to provide enough space and enough teachers for a seasonal overload and how to make short periods of attendance profitable for children who are retarded and constantly on the move.

Some of the suggestions made to meet the educational needs of migrant children were: (1) State aid for areas where there are migrants; (2) specialized curriculum and specialized teachers for retarded migrant children; (3) teachers that will migrate with children within the State; (4) curriculum reciprocity with Texas, New Mexico, and Oklahoma to provide uniform instruction in basic courses and permit normal grade placement and progress as children move from State to State. "Use of social welfare to build better home environment" and "better pay for parent workers and no child labor" were also among the suggestions.

A few superintendents expressed no interest in positive action. They were a small minority but probably reflected community attitudes. They were mainly concerned with the "trouble" migrant children cause when they come to school. "It is necessary," said one of these superintendents, "to lower the requirements to keep up the interest of the stragglers—the children of migrant families who are kept out of school to work in the fields." "Children of Mexican beet workers come to us without any educational background. Often they don't speak English and sometimes whole families will be in the first grade," said another superintendent. "The teachers in the grade schools have to make an extra class and in the rural schools it is a mess."

VETERANS' EMPLOYMENT SERVICE

WITNESS

RALPH H. LAVERS, DIRECTOR, NATIONAL ECONOMIC COMMISSION, THE AMERICAN LEGION

Mr. FOGARTY. Mr. Lavers, you are representing the American Legion. Do you want to file your statement?

Mr. LAVERS. I will file it and I would like to say just a few words.

Mr. FOGARTY. Go right ahead.

(The statement referred to is as follows:)

STATEMENT OF RALPH H. LAVERS, DIRECTOR, NATIONAL ECONOMIC COMMISSION, THE AMERICAN LEGION

Mr. Chairman and members of the House Appropriations Subcommittee, at the outset, I wish to thank the members of the subcommittee, on behalf of the American Legion, for the privilege of presenting our views relative to the appropriations for the Veterans' Employment Service, and to stress our recommendations as to the amount, in our judgment, based upon our studies, required for the proper functioning, during the coming fiscal year, of that service.

First, may I state, that it is the confirmed judgment of the American Legion that the comparatively small amount allocated to the Veterans' Employment Service by the Bureau of the Budget, namely, $1,254,000 to provide for personnel of 186, is altogether inadequate to provide the services tendered under the Servicemen's Readjustment Act, commonly known as the GI bill of rights.

Dollar for dollar, there is no comparable Federal agency that can equal the results produced by the small force of the Veterans' Employment Service.

Appropriations of the Veterans' Employment Service have been sliced continually from a peak in 1947 to the present time, a reduction that is well over 50 percent, yet the veterans' load of this Nation is increasing daily.

The Congress, in enacting the Servicemen's Readjustment Act of 1944 (GI bill), pronounced in title IV, in creating the Veterans' Employment Service, that it was the object of Congress to provide an "effective job-counseling and employment-placement service for veterans * * * so as to provide for them the maximum of job opportunity in the field of gainful employment * * *."

Effective job-counseling and employment placement service for veterans will be denied them if the Congress approves this reduction recommended in the appropriations of the Veterans' Employment Service. You cannot reduce the Veterans' Employment Service personnel 50 percent, with the veteran group increasing, and keep the promise made to them when Title IV was enacted by the Congress while we were engaged in a world war.

The Veterans' Employment Service was originally created at the urging of the American Legion in 1933, when the Wagner-Peyser Act was adopted.

The Servicemen's Readjustment Act of 1944, including title IV, as finally enacted, provided for the substantial expansion of the Veterans' Employment Service.

As to the legislative history of title IV, when the Senate bill was considered by the House, title IV was changed materially by the House. The House conferees finally receded from their position on their title IV and title IV was thereafter approved by both Houses in the principle of Senate title IV. A separate budget item was provided for the Veterans' Employment Service with restrictions against the use of such appropriation funds for any other service or function.

Title IV, or Public Law 346, as enacted by the Congress charged the Veterans' Employment Service with the following specific responsibilities:

(*a*) Be functionally responsible for the supervision of the registration of veterans in local employment offices for suitable types of employment and for placement of veterans in employment;

(*b*) Assist in securing and maintaining current information as to the various types of available employment in public works and private industry or business;

(*c*) Promote the interest of employers in employing veterans;

(*d*) Maintain regular contact with employers and veterans' organizations with a view of keeping employers advised of veterans available for employment and veterans advised of opportunities for employment; and

(e) Assist in every possible way in improving working conditions and the advancement of employment of veterans.

Obviously, if the Congress expects these important duties to be properly performed by the Veterans' Employment Service, adequate funds and adequate personnel must be provided for the fiscal year ahead. This Service cannot meet its responsibilities with the reduction in appropriations that it has suffered in the past 4 years, and the American Legion urges vehemently that sufficient funds be provided for this Service to give, not only to the men and women of World War II preferenial treatment, but to give the opportunity for job counseling and placement with maximum opportunity in the field of gainful employment, to the men and women who are now reurning from the Armed Forces.

During the coming year while many thousands of servicemen are returning to civilian life, due to the rotation system in effect among those in the Korean theater, and returning to their homes of National Guard units, and the release of many thousands of reservists and draftees, will throw a burden on the Veterans' Employment Service equal to that following World War II, and with the present load of unemployed veterans being on the increase over a year ago, it will be necessary for an alertness to be kept in all phases of employment so that these servicemen and women will be given preferential treatment.

If we are to study the functions of the Veterans' Employment Service, if we are to expect that Congress was sincere when it passed the GI bill of rights, we must be determined to see to it that funds are provided by a gracious Congress to carry on this service at a time when America needs to see to it that its veteran population does not become a forgotten group, as it is the desire of every man and woman returning from the Armed Forces to be given an opportunity in gainful employment in order that they may reestablish themselves in their community and take their place among their fellow men.

While it is felt by some that the Staff of the Veterans' Employment Service might be able to cope with the on-coming situation, while it is felt by the same group that $1,254,000 will be sufficient to carry on this service, we of the American Legion are sincere when we say we know that the service to veterans is seriously handicapped by the elimination of over 50 percent of its personnel in the past 4 years. We urge upon this subcommittee to consider the sum of $250,000 additional, making an over-all appropriation of $1,504,000 available to the Veterans' Employment Service for the fiscal year beginning July 1, 1952.

At the Miami National Convention of the American Legion, October 15–18, 1951, 37 States submitted resolutions supporting the continuance of the Veterans' Employment Service, with the result that the attached master resolution was adopted by The American Legion and is the policy of our organization.

I also offer you a copy of the active file on veterans registered with the State employment services throughout the country as of December 31, 1951.

In conclusion may I say that the original entry and reentry of veterans into the labor market of today constitutes an activity of continuing magnitude, and Congress, by the enactment of the Servicemen's Readjustment Act of 1944 mandated that the veteran should receive the maximum of job opportunity in the field of gainful employment. The task of the Veterans' Employment Service in fulfilling its part in this requirement of the Congress looms large, therefore, we can repeat that in our unalterable judgment the sum of $1,504,000 should be appropriated for the Veterans' Employment Service in order to provide for additional positions in the field to carry out the task assigned to the Veterans' Employment Service.

The American Legion sincerely appreciates the courtesy extended and the patience exhibited by this House Appropriations Subcommittee in permitting us to express the views and studies of the American Legion as to the appropriations needed for the proper functioning of the Veterans' Employment Service.

We likewise sincerely hope that our recommendations will receive favorable consideration during the deliberations by your subcommittee, full committee, and the Congress.

We are confident your approach as to the financial needs of the Veterans' Employment Service is in accord with that of the American Legion and of the Congress when the Servicemen's Readjustment Act of 1944 was adopted, namely, to secure "an effective job-counseling and employment-placement service for veterans * * * so as to provide for them the maximum of job opportunity in the field of gainful employment * * *."

RESOLUTION 404

Whereas it is the established policy of the Federal Government to assume responsibility for the rehabilitation and welfare of its veterans; and

Whereas all competent authorities agree that no rehabilitation is complete without establishment in gainful employment; and

Whereas because of the changing economic pattern, employment in any one area is not and never will be a stable condition, but transcends local and State boundaries; and

Whereas serious difficulties are being encountered in the placement of disabled veterans and older veterans in the change-over in industry from nondefense work to defense work; and

Whereas the Congress of the United States tends to economize on all appropriations for veterans' service at a time when such services are needed, not only for the veterans of World War I and World War II, but for the veterans of the Korean campaign, who will be returning to civilian life in ever-increasing numbers the latter part of 1951 and in 1952; and

Whereas the Veterans' Employment Service has been subject in the intervening years to repeated efforts to reduce the personnel by cutting the appropriations for the service and thereby eliminating the procuring of job opportunities for veterans, especially disabled veterans; Therefore, be it

Resolved, That the American Legion in national convention assembled at Miami, Fla., October 15–18, 1951, recommends that Congress appropriate adequate funds so that the Veterans' Employment Service can make continuous progress in the development of its service to veterans and disabled veterans in the field of gainful employment; and be it further

Resolved, That copies of this resolution be forwarded to all Members of the Congress.

U. S. Employment Service—Veterans' active file, Dec. 31, 1951

Alabama	4,835	Nebraska	1,529
Alaska	233	Nevada	964
Arizona	2,984	New Hampshire	1,690
Arkansas	6,356	New Jersey	9,182
California	34,369	New Mexico	1,317
Colorado	2,239	New York	30,400
Connecticut	3,885	North Carolina	4,442
Delaware	529	North Dakota	1,164
District of Columbia	1,347	Ohio	13,735
Florida	5,958	Oklahoma	3,176
Georgia	4,786	Oregon	8,181
Hawaii	820	Pennsylvania	25,189
Idaho	2,364	Rhode Island	4,332
Illinois	13,583	South Carolina	3,066
Indiana	9,751	South Dakota	1,062
Iowa	3,548	Tennessee	7,240
Kansas	1,653	Texas	11,657
Kentucky	5,461	Utah	870
Louisiana	5,373	Vermont	549
Maine	2,138	Virginia	2,134
Maryland	4,430	Washington	8,317
Massachusetts	18,262	West Virginia	4,197
Michigan	25,028	Wisconsin	4,918
Minnesota	7,161	Wyoming	399
Mississippi	4,416	Puerto Rico	10,309
Missouri	11,097	Virgin Islands	97
Montana	1,821		

Mr. LAVERS. The veterans' organization was originated at a time when we had less than 4 million veterans. It was immediately after the American Legion GI bill of rights to take care of men returning from the Second World War, so that today we find ourselves with 17 or 18 million.

With the Armed Forces discharging approximately 200,000 a month—the little State of Utah, for example, had 9,000 men come back. They were National Guard units which were demobilized.

When a survey was made, it was found 71 percent of dischargees never had work experience. In other words, they were out of colleges and out of high schools. They were National Guard men, Reserve officers, and so forth.

With the ultimate goal that we have, the American Legion feels these people should be given assistance in getting into gainful employment such as provided under the GI bill of rights.

To that extent the American Legion is asking for $250,000 more for this appropriation than has come over from the Bureau of the Budget, making it $1,504,000 total.

In the last 3 weeks there were 17 men laid off from the Veterans' Employment Service so that today we are practically back where we started from in 1933. We have 21 States where there is one man trying to do a job. The other States are anywhere from two to five in New York to five in Illinois, and five in California.

In my judgment, in order to give supervision to the State employment services and to make employer contacts, there should be some addition to the present staff of the Veterans' Employment Service and some consideration given to this group of men. We realize one man in a State like Montana, Utah, or Idaho, with their vast areas, cannot do the job with one man.

We of the American Legion hope that the Congress in its wisdom will give this service enough money to operate so these men who are coming back will be given an opportunity for placement in gainful employment.

I appreciate this opportunity to be with you.

Mr. FOGARTY. Thank you very much.

VETERANS EMPLOYMENT SERVICE

WITNESS

CLARENCE ADAMY, NATIONAL SERVICE DIRECTOR OF AMVETS

Mr. FOGARTY. You represent the AMVETS, Mr. Adamy?

Mr. ADAMY. That is right, sir.

Mr. FOGARTY. Do you have a statement for the committee?

Mr. ADAMY. I don't have a prepared statement but I would like to make a few remarks which will not take up much time.

Mr. FOGARTY. Very well; you go right ahead.

Mr. ADAMY. AMVETS are firmly in support of the Veterans' Employment Service as an integral part of a rehabilitation set-up. We feel that there are direct divisions of rehabilitation. First is the physical medicine, secondly claims and compensation work, and third is employment. There can be no rehabilitation without employment. The only segment and the only place we have to turn to for help in the rehabilitation work as it regards employment is the VES. We feel it is one of the most important, although most often forgotten, parts of the whole veterans' rehabilitation program. That is why we have been in the past and are now in firm support of an adequate appropriation for it.

As you know, the current budget request of $101,254,000 provides 186 jobs, which is another reduction from last year.

There is in my mind a grave doubt that you can go any farther down, or in fact there is a doubt as to whether or not we have already gone so far that we have lost efficiency in the set-up.

As you know, under the present set-up we have States like Montana with one man and one girl. There is grave doubt in my mind that you can do any good work at such a meager level. I would say the most important thing for the Veterans' Employment Service is stability so that we can plan on it. When I say "we" I mean the veteran. I do not mean the organization. I mean so we can plan the services so that we can bring veterans to it.

In the last 6 years we have seen a steady decrease in this service. When we had the field assistants we expected them to go out and find job opportunities. When the field assistants were gone it was a physical impossibility to carry on that service. We lost that and had to reeducate our people. That is our big problem—education of our people.

I would say the most important thing is stability at some point. If it is at 186 jobs, and $1,254,000, we will bow.

The second thing is the advisability and the wisdom of increasing the VES program to include some of the services we have given up, like this seeking out of job opportunity.

In a full employment area like we have today, we still have these terrific problems of spot dislocations. For example, the people from Cumberland, Md., are driving me crazy with their demands on time and services. The whole community, but particularly veterans, is really in a jackpot. The only answer to the problem in Cumberland is to move out. That means someone outside must find a spot for them to move to. There must be agencies. That is why we want a veterans' agency to do that.

The second phase of the wisdom of increasing this service and looking ahead would be the utilization of a man's full skills. We spent many, many billions of dollars in training 8 million men under the GI bill. These fellows trained at Government expense have gone back into productive industry today but many, many of them—I would again say more than half of them—had less than full utilization of their trained skills. We trained them with the tax payers' money. The fellow goes home and gets a job in the corner filling station and takes it because it is a job. It pays the bills and gets the baby fed. But we who paid that tremendous tax load to educate them, are not taking advantage of the full skills. Therefore, upgrading is a serious problem in my opinion that is a problem of the country. Again the only way we have to work at it is in the form of VES.

We want you to know we are firmly supporting the VES, as a matter of rehabilitation. We need it. The VES program must be effective. It being reduced continuously removes efficiency.

There are many arguments you gentlemen are completely familiar with as to why the VES appropriation should be increased but we are not pushing for that. The big thing we are pushing for is stability and later on as the needs of the country become more clear, perhaps we can maintain it at a sensible level.

I would add this rather drastic statement in closing: If we can't stabilize the VES—if the country does not need VES at the present level, perhaps it would be wiser to wipe it out entirely because you

get to the point of diminishing returns. You are getting down to where there are a million veterans to a given area and but one or two workers to serve them all.

There is grave doubt in my mind that there is any efficiency left at a lesser level. I would like to answer any questions that you have.

Mr. FOGARTY. I do not think we have any questions. We have had a complete hearing with the Department of Labor officials and we have scheduled several interested organizations to come in today.

Mr. ADAMY. We certainly appreciate the opportunity to come in today and let you know how strongly we feel about this.

Mr. FOGARTY. Thank you very much.

VETERANS' EMPLOYMENT SERVICE

WITNESS

CHARLES E. FOSTER, REPRESENTING DISABLED AMERICAN VETERANS

Mr. FOGARTY. Mr. Foster, you are representing the Disabled American Veterans?

Mr. FOSTER. Yes, sir.

Mr. FOGARTY. Do you have a prepared statement?

Mr. FOSTER. I do not have a prepared statement.

Mr. FOSTER. My name is Charles E. Foster. I am the assistant legislative director of the Disabled American Veterans.

I am appearing here in support of the recommendations of the Bureau of the Budget for the appropriation of the Veterans' Employment Service. I believe the figure is $1,254,000.

Through our own regional set-up in our claims work within the Disabled American Veterans, we have a working familiarity and experience which shows the value of the service rendered by veterans' employment representatives in the field. We hear from our DAV service officers in the field periodically and they keep us advised of the service that these people render to the veterans.

We feel that this service over the past few years has already been reduced to an irreducible minimum, if I may put it that way, and that to reduce it any further would just tear the service down to a point where it is of no value whatsoever to the veterans or to the Department of Labor under which they operate.

Another factor that I think the committee should take into consideration is that the needs for the service are increasing at the present time. We have several hundred thousand men being discharged from the armed service every month or two. We have the returning Korean veterans who are eligible for the benefit of this service. The need for the service is on the upgrade rather than on the down grade.

Congress has already extended the benefits of Public Law 16 and at this session may extend the benefits of Public Law 346 to the returning Korean veterans. With this additional impact on the service, it will definitely increase the need for this service in the States.

I therefore urge the committee to consider the request recommended by the Bureau of the Budget of $1,254,000 for this service.

Mr. FOGARTY. Thank you very much, Mr. Foster.

Mr. FOSTER. Thank you for the opportunity of coming here.

WITNESS

GEORGE L. MacELROY, NATIONAL CIVIL-SERVICE OFFICER, VETERANS OF FOREIGN WARS OF THE UNITED STATES

Mr. FOGARTY. Mr. MacElroy, you are representing the Veterans of Foreign Wars?

Mr. MACELROY. Yes, sir.

Mr. FOGARTY. Will you state for the record your name and position?

Mr. MACELROY. My name is George L. MacElroy. I am the nation civil-service officer and head of the employment division of the Veterans of Foreign Wars.

Mr. FOGARTY. Do you have a statement for the committee?

Mr. MACELROY. Yes, I have a statement for the committee.

Our organization deeply appreciates the opportunity of appearing before this committee in order to present our views relative to the appropriation for the Veterans Employment Service.

During the Fifty-second Annual Encampment of the Veterans of Foreign Wars held in New York City last August, Resolution No. 80 was unanimously adopted on the floor of the encampment. That resolution contains five explanatory points:

1. The Veterans Employment Service was created primarily to aid and assist veterans in securing employment.

2. The Veterans Employment Service had been reduced several times by budget cuts.

3. Recent efforts had been made to reduce the Veterans Employment Service further to the point of all but eliminating it.

4. The Veterans Employment Service had performed and will continue to perform an important service to veterans.

5. Funds allocated to the Veterans Employment Service are negligible when compared to the many services rendered to veterans in increasing their productivity.

These points were followed by the resolve clause which stated:

> That the President of the United States, the Budget Bureau, and the Congress, be petitioned by the national legislative chairman that sufficient funds be allocated to the Veterans Employment Service so that they might maintain strength to continue the proper service to veterans.

This resolution states the desires of over a million overseas veterans who belong to our organization. During the years that have passed since the Veterans Employment Service was created, our organization has been closely associated with their work and with the necessity of their continued services to veterans.

During the fiscal year of 1951, the Veterans Employment Service conducted 17,462 local office visits; 79,544 employer visits, and are now, and will continue to be, in great need of counseling and secured 92,788 job openings for veterans. Certainly these figures give some indication of the actual accomplishments of the service.

At the close of 1951 there were registered in the local offices for employment approximately 300,000 veterans. About 34,000 of those were disabled veterans. Certainly these figures indicate the necessity of an appropriation of sufficient funds to enable the Veterans Em-

ployment Service to maintain strength to continue the proper service to veterans.

The year 1951 represents a period of time when we had a tight labor market and yet there were registered for employment at the end of 1951 some 300,000 veterans. These veterans and the thousands more who are coming out of the military service day after day will not be absorbed in productive employment without proper assistance. They are now, and will continue to be, in great need of counseling and placement service. Many of them have never been employed in industry as they went into the military service directly from schools. Many others will not be able to follow their former occupations because of disabilities. The need, therefore, of adequate and competent counseling and placement personnel and facilities for this service to veterans is urgent for two reasons:

1. The veteran needs such service and is entitled to receive all assistance possible.

2. The national defense effort, the Nation and industry, needs the skills and knowledge of the veteran who is properly placed in employment through the Veterans Employment Service.

The Budget request of the Veterans' Employment Service for last year was for $1,583,000. Congress provided $1,300,000. This cut necessitated an immediate reduction in force and some 63 positions were abolished.

The Veterans of Foreign Wars, as well as all other veteran organizations, felt the impact of that action. We believed that the number of unemployed veterans then warranted the request for a million and a half dollars. We did not believe that the Veterans' Employment Service was overstaffed when consideration was given to the number of unemployed veterans. We received numerous letters from the field concerning that reduction in force and how it was affecting veterans in the area.

The 300,000 registered veterans at the end of the year indicated the need for the employment representatives who were separated.

The present budget request of $1,254,000, even if approved, will cause still another reduction in force and the loss of 26 more positions. The total number of positions under this budget will be 186, of which 110 will be professional personnel and 67 will be clerical personnel. In 1948 there were 410 employees in the Veterans' Employment Service. Last year there were 212 employees.

It is now contemplated that there will be only 186 employees. In other words, since 1948 the Veterans' Employment Service has been forced to release 224 employees, many of whom were highly trained specialists in the field of veteran employment. This reduction of personnel of the Veterans' Employment Service is rather alarming. It cannot help but mean that the veteran of today will not receive the same efficient and prompt counseling and placement service that they did in the past.

There is further cause for alarm when we realize that in addition to the present number of approximately 300,000 veterans registered for employment the military services are now discharging about 45,000 men a month. These men are, as a rule, still very young and many have never before been employed. They will be greatly in need of the services of the Veterans' Employment Service.

In view of the tremendous task facing the Veterans' Employment Service in their responsibility for the counseling and placement of veterans in gainful and productive employment after military service, the Veterans of Foreign Wars asks the members of this committee to recommend an appropriation which will enable that service to efficiently and promptly fulfill its responsibility.

Again let me thank you for the opportunity of presenting our views.

Mr. FOGARTY. Thank you very much, Mr. MacElroy.

Mr. MACELROY. If you have any questions, I will be glad to answer them.

Mr. FOGARTY. Evidently there are no questions.

Mr. MACELROY. Thank you very much.

VETERANS' EMPLOYMENT SERVICE

Mr. FOGARTY. Before we leave the subject of the Veterans' Employment Service I would like to insert a letter I received on the subject from Rufus H. Wilson, assistant service director of AMVETS.

(The letter is as follows:)

AMVETS, NATIONAL HEADQUARTERS,
Washington, D. C., February 7, 1952.

HON. JOHN FOGARTY,
Chairman, Labor-Federal Security Subcommittee,
House of Representatives, Washington 25, D. C.

MY DEAR MR. CHAIRMAN: AMVETS, the only World War II chartered veterans organization, is deeply conscious of the needs of veterans in the field of employment. Certainly in the rehabilitation needs of the veterans of our wars, no one factor is more pressing than that of adequate employment for no veteran can be considered rehabilitated until he has secured gainful employment and again resumes his place as a productive member of the American society.

To this end, AMVETS respectfully request that you and the Labor-Federal Security Subcommittee give careful study to the position of the Veterans Employment Service whose appropriation you are considering shortly in conjunction with the entire appropriation of the Department of Labor.

The Veterans Employment Service is the only Federal agency dedicated to the proposition of obtaining jobs for veterans. Despite this mammoth responsibility, it is also one of the smallest of Federal agencies, with a requested budget this year of $1,254,000 which calls for a total of 186 jobs in the entire agency. This appropriation request, in our opinion, is without a doubt, a very modest request—in fact, much too modest. With the onset of the Korean war; with the turn-over from expanded military departments; and with the recall of reservists under current military planning, the needs of veterans for advice and counsel as well as actual placement services in the field of employment are more acute than ever.

In 1947, the Veterans Employment Service had a budget calling for a total of 795 positions, including staff personnel as well as secretarial assistance. In 1948, this figure was reduced to 410 positions where it remained stationary through the fiscal year 1950. Thereafter, the agency was systematically reduced in size and effectiveness until this year this Bureau of the Budget has approved a monetary request covering only 186 jobs.

AMVETS feel that this vast curtailment of such an important program does not parallel the actual needs of veterans for a personalized employment service such as the Veterans' Employment Service. We find that at this late date, following World War II, nearly 34,000 disabled veterans are registered for employment with local employment offices. This means that a minimum of 34,000 men need special assistance and attention in finding employment commensurate with their disability and skills. The continued reduction of the effectiveness of the Veterans' Employment Service certainly does nothing to ease such an enormous problem. In connection with the employment difficulties of disabled veterans, it should also be noted that there are still 60,000 veterans in training under Public Law 16 and it is anticipated that a considerable portion of this number will have difficulty in finding adequate employment. This problem

will increase in intensity as the veterans who are disabled in Korea return home and are discharged. Therefore, if the Veterans' Employment Service program were aimed only at placement of disabled people, there would be a continued need for the agency and a continued need for it at a reasonable level.

Another factor to be considered in the need for the Veterans' Employment Service is the current series of spot dislocations in the labor market. Detroit, Mich., with a mass turn-over of war production and Cumberland, Md., with a termination of historic industries, bring into focus examples of mass dislocation due to economic factors beyond the control of the peoples of those communities. A great portion of those individuals dislocated by these events are veterans, and we believe that the Veterans' Employment Service performs a very useful function in reestablishing such people into productive employment.

Looking into the future, it is necessary to note that the Congress is actively considering a new GI bill of rights for Korean veterans. The World War II GI bill that granted training to millions of World War II veterans was a terrific investment by the peoples of America through their tax dollars for the training of young veterans. The Korean GI bill will be another such investment. In order for this Government and the people of this Nation to profit from such an investment, it is vitally necessary that there be proper tools for the effective placement of men trained under such a program. Although it is true that most of the men trained under Public Law 346, and most of those who will be trained under a future Korean GI bill are able to find jobs, it is also true that in many many instances, the individuals so trained are not properly utilized at their greatest skills. To achieve such an end, which is a goal to be eagerly sought by the entire economy of this Nation, AMVETS feel that we need, and must have, a continuing, effective Veterans' Employment Service.

During these last 6 years, we who consider the Veterans' Employment Service one of the bulwarks of the rehabilitation program for the veterans of this Nation, have watched this program being reduced repeatedly.

We have protested against such action which we feel to be false economy. Now we must, as forceably as we know how, bring to congressional attention that if there are to be more curtailment of such an important function of the Federal Government, and if we are not to at least maintain the present system with the present organization with some hope of continuity, then the entire program should be abolished for we feel that we are rapidly approaching the point of diminishing returns where effectiveness of programing can no longer be maintained.

AMVETS are very much in favor of the continuation of the Veterans' Employment Service at least, at its present level. We know that the veterans of this Nation are desperately in need of the services offered through this agency. We therefore earnestly request that the Labor-Federal Subcommittee grant full support to the appropriation request of the Veterans' Employment Service, thus maintaining at its present level, a most vital veterans program.

We respectfully request that this letter be included in the record of the hearings of your subcommittee as the official position of our organization.

Very truly yours,

RUFUS H. WILSON,
Assistant Service Director.

BUREAU OF EMPLOYMENT SECURITY

Mr. FOGARTY. We have also received a letter, on the over-all program of the Bureau of Employment Security, from Mr. Marion Williamson, president of the Interstate Conference of Employment Security Agencies. This letter will be inserted in the record at this point.

(The letter is as follows:)

INTERSTATE CONFERENCE OF EMPLOYMENT SECURITY AGENCIES,
February 6, 1952.

Hon. JOHN E. FOGARTY,
Chairman, Labor-Federal Security Subcommittee,
Appropriations Committee, New House Office Building,
Washington, D. C.

DEAR CONGRESSMAN FOGARTY: Included in the Federal budget under the heading "Bureau of Employment Security' is the request for an appropriation to finance the administration of tate employment security programs. This appro-

priation request differs in several particulars from those of the regular departments of the Federal Government.

1. Employment security (unemployment insurance and employment service) is not a Federal program but is a State-Federal cooperative arrangement with the States having responsibility for administration.

2. The States are dependent upon the Federal Bureau of Employment Security to initiate the budget estimate and negotiate with the Bureau of the Budget in the determination of the amount to be included in the President's budget to be transmitted to the Congress without formal participation of State administrators, despite the fact that the States are ultimately responsible for proper administration.

3. Workloads in employment security administration—particularly unemployment insurance—are not controllable as are workloads in most functions of government and are difficult to predict with accuracy because of the many and variable factors involved.

4. States are specifically charged with the responsibility of conducting proper and efficient administration as measured by standards contained in the Federal law with special emphasis on the one requiring the prompt payment of benefits when due. Failure to so perform when found by the Secretary of Labor may subject a State to loss of further administrative grants and the ultimate loss of tax offset to employers.

5. Prompt payment of benefits when due imposes dual obligations, both of which must be met.

6. Financing the administration of employment security differs from that of other governmental functions in that the source of income is from the payroll tax levied on the payrolls of employers and is not a direct burden on the general fund, even though at the present time financing is not operated through a special account. In no single year has the appropriation ever equaled the amount of tax collected.

7. Inadequate appropriations so hamper the States in the administration of their laws that it becomes practically impossible to pay benefits promptly when due, as the eligibility standards including the work test used in the determination of "when due" cannot be properly applied.

This results both in the payment of improper claims from the trust fund which has been created through the tax on the payrolls of the same employers who also pay the tax to provide the source of administrative funds. Such a situation fosters public criticism of the entire program to the benefit of no one.

8. The defense effort has placed additional responsibilities on the States. While the Federal Government determines manpower policies, the States must through their local employment security offices implement and carry out those policies. The success of the entire defense mobilization program is dependent upon the effective coordination and utilization of available manpower.

The States, therefore, cannot further curtail their employment service staffs and still meet those responsibilities. Maximum utilization of staff through transfer between unemployment insurance and employment service activities has now been reached.

It is for these reasons that, on behalf of the States, I solicit your support of the full appropriation as requested by the Bureau of the Budget. This request is a conservative estimate which is considerably below what the States now consider the minimum amount to be necessary to meet their obligations. Should currently existing conditions continue, supplementary funds will be required, so a reduction in the request would merely hasten that request and would in the meantime seriously interfere with the efficient administration, resulting in substantial financial losses rather than economies.

If the conference officers or other State people can be of any assistance to you or your committee during the process of considering this appropriation, I hope that you will not hesitate to call upon us.

Very truly yours,

MARION WILLIAMSON,
President, Interstate Conference of Employment Security Agencies.

VOCATIONAL EDUCATION

Mr. FOGARTY. Mr. Cecil H. Munson of the American Legion has submitted to the committee a statement regarding the vocational education program which we will insert in the record.

(The statement is as follows:)

STATEMENT BY CECIL H. MUNSON OF THE AMERICAN LEGION, WASHINGTON, D. C.

The American Legion is interested in seeing that America's vocational program is further developed and improved in order to help keep this country strong and productive and in order that adequate public vocational programs will be available to serve veterans of World War II and the Korean war.

At present many communities have no programs, or inadequate programs, of vocational education. For example, I am informed by reliable officials that the vocational agricultural program in terms of teachers needed and pupils enrolled is only about 40 percent of what is needed in order for all communities and all pupils who need such training to be served. There are approximately 5,000 public secondary schools in the United States serving rural youth that do not have programs of vocational agriculture and many other schools that have one agricultural teacher where two or three are needed in order to meet needs. We are told that America's public vocational program is providing training for only about 50 percent of the number who need such training. If this is true, it means that Korean veterans will meet with difficulty in obtaining vocational training in many communities in the Nation.

The American Legion is, of course, exceedingly anxious to see that every veteran who has served in the Armed Forces since the beginning of the Korean war is provided with educational benefits commensurate with those made available for veterans of World War II.

A smaller number of veterans are involved in the Korean war than in World War II. This means that fewer will seek vocational training of less than college grade than did so immediately following World War II. This presents certain definite problems, especially in the field of agricultural training.

Following World War II there were enough veterans interested in becoming farmers for an institutional-on-farm program to be developed in almost every farming community with a full-time teacher. This will not be true for Korean veterans. There will likely be only a few such veterans in each community. In most communities it will not be possible to organize separate classes for veterans desiring this type of training. They will most likely have to be absorbed in already existing programs—unless they are forced to travel great distances, thus making the program very expensive to the veteran and to the Government for travel of teachers.

For World War II veterans—because of numbers—it was possible to organize classes even in communities where there was not a regular program of vocational agriculture. Though some of these classes were not up to the standards of those provided in schools where regular programs were in operation, the veterans nevertheless were provided training programs in keeping with their interests and their needs. Since these veterans did not have to travel any great distance to attend classes, much time and money was saved.

The situation today is different because the veterans interested in becoming farmers will be widely scattered throughout rural areas. If separate classes, with separate teachers, are set up to take care of veterans, it will involve in most parts of the Nation a tremendous amount of travel on the part of the veterans. It would be much more economical to the Federal Government and much more satisfactory training would be offered to veterans, if all rural communities could establish regular programs of vocational education in agriculture. The record shows that for every dollar of Federal money spent for the regular program of vocational education, State and local sources put up between $3 and $4.

If departments of vocational agriculture could be established in a higher percentage of schools serving rural communities and if adequate teachers could be made available in the regular program, then veterans could be offered agricultural training by regular teachers in their home communities. This would mean that veterans could receive excellent training close to home and thus cut down on the tremendous cost to them for travel to and from classes. It would also reduce appreciably the total amount of tuition necessary to take care of the cost of training for veterans, which would result in a saving to the Federal Government.

In light of the above facts, it is our considered opinion that it would be an economical step for Congress to increase appropriations for the regular programs of vocational education. This would make it possible for additional schools to establish departments of vocational agriculture and make these training facilities available to veterans in communities where they live at a lower tuition rate

than would be necessary if separate classes are organized and full-time teachers are employed.

The same argument, of course, holds true in other fields of vocational education. As we strengthen our public vocational schools, we make it possible for these institutions to do a more effective job of training veterans for civilian occupations. We therefore strongly urge Congress, as a step toward assisting veterans, to increase the appropriation for vocational education under the provisions of the George-Barden Act.

TUESDAY, FEBRUARY 19, 1952.

VOCATIONAL REHABILITATION

WITNESS

HON. HENRY O. TALLE, A REPRESENTATIVE IN CONGRESS FROM THE STATE OF IOWA

Mr. FOGARTY. The committee will come to order.

The committee has before it this morning Congressman Talle of Iowa. Do you have a statement for the committee, Congressman?

Mr. TALLE. Mr. Chairman, I appreciate this opportunity to appear before your distinguished committee this morning. I have but one point to make and I will state it briefly.

The new budget provides $54,128,000 for the relief of the handicapped, but only $23 million for their rehabilitation. In my opinion this is a short-sighted policy.

I am aware, of course, that some of our people are permanently and totally disabled.

I realize, too, that in some instances local assistance is woefully inadequate; but I firmly believe that the emphasis of the program—twice as much for relief as for rehabilitation—is wrong. We should concentrate on reclaiming these unfortunates.

It is sound economy, Mr. Chairman, to assist the disabled to become gainfully employed taxpayers. That is the principal aim of the Federal-State vocational rehabilitation program which has been carried on since 1920. That is the constructive way to reduce the relief rolls.

Under the circumstances I think it would be a grievous error for the Federal Government to fall short by $7 million of matching State funds, as proposed in the new budget. It is in the public interest to provide the full $30 million authorized in Public Law 113 of the Seventy-eighth Congress. In this connection I want to stress the fact that I am not proposing an increase in the budget. I am, however, proposing that $7 million of the relief funds be transferred to the rehabilitation program. Surely it is wiser and kinder to help the handicapped to become self-supporting citizens rather than to maintain them in semipoverty at public expense.

Mr. Chairman and members of the committee, I urge your most serious consideration of this proposal, and I request permission to include as part of my remarks a letter dated February 5, 1952, addressed to me by Mr. H. L. Benshoof, director of the Vocational Rehabilitation Division of the Iowa Board for Vocational Education.

That is all, Mr. Chairman.

Mr. FOGARTY. Thank you very much, Mr. Talle.

(The letter referred to is as follows:)

STATE OF IOWA,
BOARD FOR VOCATIONAL EDUCATION,
VOCATIONAL REHABILITATION DIVISION,
Des Moines, Iowa, February 5, 1952.

Hon. HENRY O. TALLE,
Member of United States Congress, House Office Building,
Washington, D. C.

DEAR MR. TALLE: We have noted that the President's budget again reflects the Federal Security Agency's full-steam ahead policy on relief and welfare programs affecting the disabled and only mild interest in the Federal-State program to help the handicapped to help themselves through rehabilitation.

It is recommended that the new public-assistance program for the disabled be given over $54,000,000, even though a number of States, including Iowa, have rejected the program. Other relief programs fared likewise. On the other hand, the only program to rehabilitate the disabled, operating since 1920 with all States, Puerto Rico, and Hawaii now participating, is to receive only $23,000,000—$7,000,000 short of the Federal Government's commitment to the States under provisions of the Federal act. This is exactly what we were afraid of when I recently talked personally with you on this subject.

Mr. Talle, we cannot expect the advocates of relief and pauperism to support a program which puts reliefers out of business. Because you are interested in the disabled and because you believe that putting the disabled to work is truly an economy measure, we are just going to have to call on you to give us some direct help at the Washington end. Here are the facts as far as the State of Iowa is concerned:

We are without case-service funds to train or otherwise equip additional disabled people for jobs during this fiscal year. The Iowa General Assembly at its last session increased our State appropriation for this work by $30,000 annually, but the Federal Government simply did not match it as was anticipated.

The 1952 budget which Iowa submitted to the Federal Office of Vocational Rehabilitation called for $337,570 in Federal funds, which was needed to carry out the job that is expected of us under Public Law 113 of the Seventy-eighth Congress. The Federal funds allocated to Iowa for this year according to the forecast is $241,782, or $96,788 less than the amount needed and to which Iowa is entitled unless Congress intends to abrogate the provisions of the Federal Rehabilitation Act in favor of the policies of the Federal Security Agency. The effect of this cut on the rehabilitation of the handicapped in Iowa is as follows:

1. No additional persons can receive rehabilitation training, physical restoration, occupational tools, or other services necessary for employment until additional funds become available. Funds for this year are only adequate to complete the preparation of the 898 already under way and no new cases can be served.

2. On January 1, 1952, Iowa had 1,040 disabled applicants awaiting rehabilitation service. On that date 855 other disabled Iowans were undergoing medical and vocational diagnosis to determine suitable occupations and preparation, but plans for the rehabilitation of these individuals are stymied for lack of funds. Referrals of new cases continue at the rate of 160 per month.

3. Consequently, approximately 300 fewer persons are being rehabilitated this year than would have been possible had Iowa received the Federal support to which it was entitled under Public Law 113 as set forth in our budget request. This loss and this cost to our State is tremendous.

4. Iowa has submitted a State budget qualifying under the act for $341,450 in Federal funds for fiscal 1953. This is the minimum amount needed to carry out our responsibilities under the law. This budget will enable us to fully rehabilitate approximately 1,500 Iowans in 1953—500 more than we expect to rehabilitate this year.

In order for the Federal Government to meet its obligations under the Rehabilitation Act a Federal appropriation of $30,000,000 is required. At this hour when we need to reduce our tax burdens, increase our defense production, and increase our national income, it is surely an economy measure to make tax producers out of tax consumers through a constructive program of rehabilitation which costs so little compared with relief.

Mr. Talle, persons such as yourself are going to have to help us if we are to get any place in Washington these days. We would sincerely appreciate your appearing personally before the Labor-Federal Security Subcommittee of the House Appropriations Committee in behalf of this appropriation. Mr. Fogarty's

committee will probably conclude hearings in about 2 weeks. Congressmen from other States have expressed their intentions to appear and we want to be certain that our Iowa situation is fully presented. If you cannot appear personally, will you file a statement with the committee and contact Mr. Schwabe and Mr. Busbey? Iowa and a few other States have not yet accepted Federal assistance to the permanently and totally handicapped and we do not think any man should be forced upon assistance rolls because the opportunity for rehabilitation is not available to him.

Thank you very much for representing us in this matter.

Yours very truly,

VOCATIONAL REHABILITATION DIVISION,
H. L. BENSHOOF, *Director.*

Mr. FOGARTY. I would like to agree with you, Congressman, that this is one of the most important items we have today. It has been testified that we get back about $10 for every $1 we appropriate when we rehabilitate these people who are on the relief rolls.

Mr. TALLE. I am very glad to hear you say that, Mr. Chairman.

VOCATIONAL REHABILITATION

WITNESS

HON. HOMER D. ANGELL, A REPRESENTATIVE IN CONGRESS FROM FROM THE STATE OF OREGON

Mr. FOGARTY. The committee now has before it Congressman Angell of Oregon.

Mr. ANGELL. Thank you very much, Mr. Chairman. I have a very short statement.

Mr. Chairman and members of the committee, I appreciate your indulgence in letting me present some of the facts in connection with the proposed budget for 1953 for vocational rehabilitation in carrying out the functions under Public Law 113 of the Seventy-eighth Congress, particularly the facts in the State of Oregon, a portion of which I have the honor to represent.

The Division of Vocational Rehabilitation of the Oregon State Board of Education advises me that the budget for the State of Oregon calls for $303,092 in Federal funds which is necessary to carry out its program, this being the minimum needed to do what under the law they are expected to do for the handicapped of the State of Oregon. This will enable the State to rehabilitate 840 individuals in 1953.

The State of Oregon received in 1952 a total of $234,428, which was $65,664 less than the amount required. I am advised that if the States are to receive funds needed for carrying on this work a Federal appropriation of $30,000,000 will be required. In urging the appropriation of this sum, the Division of Vocational Rehabilitation of Oregon has submtted to me the following facts:

The legal basis for the operation of the State-Federal program of rehabilitation for adult civilians is Public Law 113 of the Seventy-eighth Congress and correlative State legislation. The act obligates the Federal Government to reimburse 100 percent State expenditures for administrative, guidance, and placement costs and 50 percent of expenditures for case service.

In recent years Congress has not met this obligation, although in the meantime it has established a new category of public assistance for

the handicapped and has spent for this new program more in its first year than has ever been appropriated for vocational rehabilitation.

Inadequate Federal support has contributed to the following situation:

1. The Nation is being deprived of manpower that could be made available by rehabilitating the handicapped.

2. Thousands of handicapped persons are being forced to accept public assistance rather than the rehabilitation they prefer. Yet, rehabilitation is much cheaper for the taxpayer and better for the individual.

3. State rehabilitation agencies are being demoralized by uncertainty over whether the Federal Government intends to meet its obligations under Public Law 113.

The present budgetary situation is as follows:

The 1952 appropriation is $21,500,000.

For 1953 the Bureau of the Budget has recommended $23,000,000.

The amount needed to meet the obligations of the Federal Government under Public Law 113 is $30,000,000.

The amount the States will put up in 1953 is $12,900,000.

On the basis indicated above, the Federal share will be 69.9 percent, approximately the proportion the history of the program shows is necessary to properly carry out the laws.

The appropriation of $30 million by the Federal Government will have these results:

1. The number of rehabilitants will increase from 66,000 in 1951 to over 85,000.

2. The State agencies will be able to serve those severely handicapped persons who require more expensive services.

3. The State agencies will be able to serve more adequately referrals from all sources, particularly from welfare departments administering assistance for the disabled.

Mr. Chairman, I trust and am sure you will give most careful consideration to the requests of the various States for the carrying out of this most essential rehabilitation program and that an adequate amount will be recommended by your committee which, together with sums advanced by the States, will permit the program to be carried out successfully.

In summary, we have a very acute situation in our State as you know, because we are one of the most rapidly growing States in the Union. That means an influx of a good many who need relief and rehabilitation. So, we have a fine program, I think, in our State on rehabilitation, and our people are quite interested, of course, in seeing that the appropriation is sufficient to enable them to carry on that work as provided. Of course, we feel, as you do, that we have to cut corners and we have to cut down our budget, if possible—at least, keep it within reasonable limits—and to do that, everyone, I presume, must take his proportional cut.

Yet, problems of this sort—rehabilitation, relief and help for the aged, and some of the development of our own natural resources here at home—seem to me to have such an appeal that they should be at least adequately financed, and we feel that this program is one that comes in that category. I personally think so myself.

That is the appeal I am making to you gentlemen.

I know you are fair-minded and you have as much appreciation, if not more, of the need for this program as I do, because you have had more to do with it than I have.

Mr. FOGARTY. The committee has always been fair with this particular agency, Mr. Chairman, and we have seldom cut what the Bureau of the Budget has allowed for them.

Mr. ANGELL. Thank you very much, Congressman.

VOCATIONAL REHABILITATION

WITNESS

HON. JOE L. EVINS, A REPRESENTATIVE IN CONGRESS FROM THE STATE OF TENNESSEE

Mr. FOGARTY. The committee has before it now, Congressman Evins of Tennessee.

Mr. EVINS. I appreciate being allowed to appear here. I appear here for the handicapped people of my State of Tennessee. From time to time I have had conferences with Mr. J. Hank Smith, the director of rehabilitation for Tennessee, and Mr. Frasier Harris, the regional representative, particularly in my district, whose office is located at Cookeville. These gentlemen have stressed several times the need and importance of increased funds for this program in our State and insist that it has been inadequate for the past several years.

I might point out that Public Law 113 stated that the Federal Government would provide 100 percent of the cost for administrative guidance of the program and 50 percent in servicing the handicapped, but they have not done that since that law was passed.

By reason of inadequate funds, the Nation is being deprived of manpower that could be made available by rehabilitating the handicapped. In addition, thousands not only in my State of Tennessee but throughout the United States are being forced to accept public assistance rather than rehabilitation. When you rehabilitate a man, there is no recurring cost. This is advantageous, of course, for the taxpayers of the Nation and for the bettering of the individual himself.

State agencies in many instances are being demoralized because of the fact that the Government is not fully living up to its obligation as stated in Public Law 113.

Mr. Chairman, I know you are fair-minded, and I don't want to take up too much of your time. I have a further committee meeting of my own this morning, but I did want to present some of these figures that have been presented to me.

In 1952, the State of Tennessee requested $577,000, in round figures. This was cut to $479,000, or the equivalent of a $98,000 cut from what was needed and required in my State. At the present time Tennessee has $61,522.53 of unmatched State funds which the Federal Government has not matched for this program. They have gone before the State legislature and asked for increased funds; this was provided and the Federal Government has not matched it.

The State of Tennessee has 1,546 disabled applicants at this time awaiting service. This is approximately 218 less than were rehabilitated in 1952. This is because of an inadequate budget.

For 1953, our State is asking for the same amount of funds as they asked for in 1952; namely, $577,994.46 in Federal funds. This is a minimum fund that is needed. It is the bare minimum to take care of the handicapped in our State. The director has advised me that this fund would rehabilitate 2,050 handicapped people in 1953, or approximately 400 more than were rehabilitated in 1952. The same situation and figures could be applied and broken down by districts. I will not burden the committee on that.

With your permission, I would like to have these two letters from the director and from the regional director placed in the record.

Mr. FOGARTY. Without objection, it is so ordered.

(The letters referred to are as follows:)

STATE OF TENNESSEE,
DEPARTMENT OF EDUCATION,
Nashville 4, Tenn., January 30, 1952.

Hon. JOE L. EVINS,
Member of Congress, Washington, D. C.

DEAR CONGRESSMAN EVINS: May I express to you my sincere appreciation for your interest in our program of vocational rehabilitation for the handicapped in Tennessee and for your very kind reception of the local rehabilitation counselor who serves your district.

The purpose of this letter is to give you additional information about our own Tennessee program of vocational rehabilitation that I believe will clearly show the damage done by the failure of the Congress to carry out the provisions of Public Law 113.

For 1952 we submitted to the Office of Vocational Rehabilitation a budget calling for $577,994.46 in Federal funds. This was the minimum needed to carry out rehabilitation functions under Public Law 113 of the Seventy-eighth Congress.

Our forecast of Federal funds for 1952 is $479,799.00, or $98,195.46 less than the amount needed. The effect of this cut on the rehabilitation of the handicapped in our State is as follows:

1. We have $61,522.53 unmatched State case service money. Under our State rehabilitation law we will be able to spend this in purchasing the necessary services for our handicapped clients, but have little or no hope of receiving the 50 percent reimbursement as provided for in Public Law 113.

2. We do not have funds or staff to serve the ever-increasing number of cases being referred to us. We have 1,546 disabled applicants awaiting service at this time. The majority of these persons could be rehabilitated into useful employment and could be producers and useful citizens if given the opportunity.

3. Approximately 218 fewer persons are being rehabilitated in 1952 than would have been if our full budget request had been allowed.

For 1953, the second year of our biennium, we have submitted a State budget request calling for the same amount as in 1952; namely, $577,994.46 in Federal funds. This is the minimum amount needed for us to do what we are expected to do for the handicapped of our State. This amount would enable us to rehabilitate approximately 2,050 handicapped Tennesseans in 1953, 325 more than we expect in 1952.

In order for us to get the Federal funds we need, a Federal appropriation of $30,000,000 will be needed.

I am taking the liberty of speaking for the handicapped in saying that we shall appreciate your appearing before the Labor-FSA Subcommittee of the House Appropriations Committee, in behalf of this appropriation. Hearings are now under way with Mr. John Fogarty as chairman of the subcommittee. Other Congressmen have expressed their intention to appear, and we want to be sure that the problem in Tennessee is presented.

Will you please advise me as to whether or not we can definitely count on you to help us in this respect?

Respectfully yours,

J. HANK SMITH,
Director, Division of Vocational Rehabilitation.

STATE OF TENNESSEE, DEPARTENT OF EDUCATION,
DIVISION OF VOCATIONAL REHABILITATION,
Cookeville, Tenn., February 4, 1952.

Hon. JOE L. EVINS,
Member of Congress.
House Office Building, Washington, D. C.

DEAR CONGRESSMAN EVINS: You will recall our conversation in your office in Smithville on December 27, 1951, relative to the needs of rehabilitation and our hope that they might be fulfilled by action of the present Congress. I very much appreciate the interview and, in accordance with my promise, I am now writing you rather specifically about the situation confronting the particular district which I serve.

I have direct responsibility as a vocational counselor for the work with the physically impaired in the following counties: Clay, De Kalb, Jackson, Macon, Putnam, Smith, Trousdale, Van Buren, and Warren. According to the 1950 census, this territory had a population of 121,887. There are approximately 850 people within this district who are in need of our service in order to be self-supporting and earn sufficient livelihood for themselves and, in many cases, for families. As of December 31, 1951, we had 96 people actually receiving some rehabilitation service through this office. We also had on our rolls 106 other people who were being investigated or being considered for some rehabilitation service. Even if we are able to render adequate service to all of these 202 people, you will note that this will fall short of the 850 people in the district who do need service and for whom we cannot meet the needs due to lack of funds and inadequate personnel. Last fiscal year, from the above territory we closed 93 cases as successfully rehabilitated. Many of those, of course, were persons who had been receiving assistance through the Department of Public Welfare. Many others of them would have become welfare cases had not rehabilitation rendered substantial services which would enable them to work for a living. During the current fiscal year ending this coming June 30, we hope to reach approximately 100 successfully rehabilitated cases. I believe it is well known to you that what we spend on these people enables a substantial saving in the long run to the taxpayers because they are self-supporting taxpayers rather than tax consumers.

Our State director, Mr. J. Hank Smith, I believe has already pointed out to you that the President has recommended $23 million for vocational rehabilitation in all of the States. He has pointed out that this is $7 million short of our actual need in order to do the job that we are certain should be done.

I understand this matter is now before the Labor–SFA Subcommittee of the House Appropriations Committee of which Congressman John Fogarty is chairman. I assure you that if you can appear before this committee on behalf of our program it will be highly appreciated by me personally and by the physically impaired people within this district. I assure you that I very much appreciate your expressed interest in our work and your willingness to do what you can for us.

With kindest personal regards and every good wish for your continued outstanding success in Congress, I remain,

Yours very truly,

FRAZIER HARRIS,
Counselor, Rehabilitation Division.

Mr. EVINS. I know that you have a difficult problem of bringing about economy while at the same time providing funds for necessary purposes. It seems to me we should take care of the handicapped in this country, take them off of the relief rolls, and make useful and productive citizens of them.

I appreciate the consideration of the committee.

Mr. FOGARTY. We are glad that you could appear before us today.

WITNESS

HON. E. L. BARTLETT, A DELEGATE IN CONGRESS FROM THE TERRITORY OF ALASKA

Mr. FOGARTY. The committee has before it now the Delegate from Alaska. Delegate Bartlett, do you have a statement for the committee?

Mr. BARTLETT. Thank you, Mr. Chairman. Gentlemen of the committee, I appear here to support the budgetary request which seeks $1,230,000 to be used by the Public Health Service for continuation of the Alaska program. There is no need here for me to try to make a detailed, technical presentation of the several items in the budgetary request because I know that has been done before by the departmental witnesses, but in a general way I want to express the hope that this program will be continued undiminished in the coming fiscal year.

It is mighty difficult, I suppose, in a situation such as this where money is made available for scientific as well as for practical purposes, to assign plus or minus signs at the end of any given year with respect to concrete accomplishments, but from what I have seen of this work I am convinced it is one of the most worth-while cooperative programs ever undertaken in the Territory of Alaska.

Before this committee made available funds for this joint venture between the Federal Security Agency and the Territorial department of health, virtually nothing had ever been done in a scientific way in the health field in Alaska. Since the program was inaugurated, accomplishments have been very significant and worth while. Of course, it is a long-range program and it will take a long time before the job is done because as I say the field had not even been explored in a tentative way before the intervention of this Congress a few years back made it possible. There were many practical aspects of the program, too, and they have been most helpful in the important field of making Alaskans healthier people.

The laboratory work has gone ahead and the Public Health Service has some fine facilities at Anchorage and some very worth while studies are being undertaken there.

I want to say, Mr. Chairman and members of the committee, that we of Alaska appreciate and appreciate deeply what you have done in making all this possible and I should not want to conclude without making a personal reference to the interest of a former and a late member of this committee. I refer to Frank Keefe, who, immediately upon the program's being presented some Congresses ago, saw its benefits and its utilities and worked in the forefront of those to put it into effect. We shall ever be grateful to him for that.

Mr. FOGARTY. I believe that was in 1948?

Mr. BARTLETT. 1948, I believe, the first year of the program. You, Mr. Chairman, and others joined then and later in instituting the program.

I also want to say that one of the reasons, in my opinion, why it has worked so well is that in the person of Dr. C. Earl Albrecht, as commissioner of health for the Territory, we have a man of great zeal, intellectual capacity, and vision. Dr. Albrecht has appeared before

the committee, I believe, on several occasions and he has done a marvelous job in a very short space of time in coordinating the program and in instituting new approaches in the public health field. We are proud of the work he has done.

I desire to close by expressing once more the strong hope that the committee will approve the entire amount of the budgetary request.

I should also like to add, if I may, that there is a great need now for a pathologist. The sum which would be required for such a specialist, together with assistants, is not in the budget before you but there is a distinct requirement for such a service being performed in connection with the general program and I hope that the committee may see fit to add a pathologist, together with the necessary service personnel, to the Alaska staff. I am told that that could be done for something on the order of $60,000.

Thank you very much.

Mr. FOGARTY. Thank you, Mr. Bartlett.

Are there any questions?

(Discussion off the record.)

Mr. BARTLETT. I want to extend here and now an invitation to this committee to visit Alaska and I hope that the visit may be made during this year. I think it would be helpful to the committee and to the Congress if you were to go there. A vast lot of work is being done in a general way and quite a little in a specific way under the jurisdiction of this committee. We in Alaska would welcome such a trip. We would like to have you go. I mean that.

Mr. FOGARTY. I personally think the committee should go because we are appropriating money every year, now, for these health purposes in Alaska and I think we should see what has been accomplished and what the difficulties are, first-hand. We have made arrangements a couple of times but had to cancel them for one reason or another.

Mr. BARTLETT. I know this is not the year that will be easiest for traveling but I hope you can make it.

Mr. BUSBEY. May I make this suggestion if we do go, Mr. Chairman, that we allow plenty of time in advance for research in working out an agenda on the things that we want to look into. I found that to be very helpful to me in my trip last summer to Europe. I spent many weeks in research, setting up my agenda so that I would be sure to see the programs and contact the people that I wanted to see through friends of mine over here. Otherwise I would never have been able to obtain the information I did.

Mr. FOGARTY. Thank you very much, Mr. Bartlett.

Mr. BARTLETT. Thank you very much indeed.

VOCATIONAL REHABILITATION

WITNESS

HON. HAROLD C. HAGEN, A REPRESENTATIVE IN CONGRESS FROM THE STATE OF MINNESOTA

Mr. FOGARTY. The committee has before it now, Congressman Hagen, of Minnesota.

Mr. HAGEN. My name is Representative Harold C. Hagen, representing the Ninth District of Minnesota.

I am here in support of the request for funds for vocational rehabilitation. We in Minnesota, of course, are a part of the national program. From the information I have from the State Department of Education in Minnesota, they are anxious to get the fullest and largest possible amount, for the reason that the funds in the past have been insufficient and they have had to get along on a smaller staff than is necessary to fully carry out a successful program. In other words, they have been understaffed, making it difficult to carry on the full program that is desirable.

They are unable to take care of the greatest number of persons who should be rehabilitated and therefore, there are many left outside of the program.

It has been pointed out to me, and I fully agree, that in the long-run it is a money saving program, inasmuch as if you would train and put men and women into a vocation and trade they will go into jobs, become good citizens and pay taxes and support and help other people, whereas if they are unable to get that sort of a program and assistance they will eventually go on relief, if they are not already on relief and become a burden to the local community, the State and the Federal Government.

This sort of a program, as I am sure you already know, has been fully endorsed not only in Minnesota but throughout the country by welfare agencies, welfare and social people, educational groups, business men, labor and veteran groups and officials of a public nature all up and down the line.

I just want to urge your consideration for the more adequate amount that is necessary.

I would like to file a brief statement which I will have ready later today.

Mr. FOGARTY. Without objection, it is so ordered.

(The statement referred to is as follows:)

STATEMENT OF REPRESENTATIVE HAROLD C. HAGEN BEFORE LABOR FSA SUBCOMMITTEE OF HOUSE APPROPRIATIONS COMMITTEE

Mr. Chairman, I want to speak briefly with respect to the proposed appropriation for vocational rehabilitation in the States. In my opinion the enactment of the Rehabilitation Act in 1920 and the subsequent amendments (Barden-LaFollette) in 1943 constitute one of the soundest and most far-sighted pieces of social legislation Congress has ever enacted. The rehabilitation of handicapped people is not only a great humanitarian undertaking, but is also sound economy, since it reduces dependency and makes tax payers of tax consumers.

It is, therefore, of concern to me that Congress has not been appropriating enough money to take full advantage of State funds for rehabilitation, although in the meantime it has set up a new category of public assistance for the disabled and is already spending more on this program than it ever has on rehabilitation.

I recognize fully the need for an assistance program for the totally disabled, but I feel strongly that Congress should do everything it possibly can to encourage rehabilitation. Any other course seems inconsistent and, I might add, wasteful.

It is my understanding that the $23,000,000 recommended by the Bureau of the Budget will not be enough to match the State funds as required in the law (Public Law 113 of the 78th Cong.). It is my sincere hope that this committee will give careful attention to this situation and recommend an amount that will indicate clearly the intent of Congress that every handicapped adult be given an opportunity to become a self-supporting citizen.

Mr. FOGARTY. Are there any questions?

Thank you very much, Mr. Hagen.

Mr. HAGEN. I thank the committee for allowing me to appear here this morning.

VOCATIONAL REHABILITATION

WITNESS

HON. CARL ALBERT, A REPRESENTATIVE IN CONGRESS FROM THE STATE OF OKLAHOMA

Mr. FOGARTY. The committee now has before it Congressman Albert of Oklahoma.

Mr. ALBERT. I appreciate this opportunity to appear before your committee. I appear in the hope that this committee can see fit to increase the budget estimate of funds for vocational rehabilitation. I am advised that a total of $30 million in Federal funds is needed for 1953 to enable the national program to develop even modestly. In my own State a request for $622,978 in Federal funds has been made. This is the absolute minimum needed to carry on the rehabilitation program envisaged under Public Law 113 of the Seventy-eighth Congress. The forecast in my State is for $483,192 or $135,780 less than the amount needed. The effect of the cut is as follows:

1. We will have $45,956 of unmatched State funds for case services.

2. Our State vocational rehabilitation division does not have the funds or staff to serve the ever-increasing number of cases referred to it. At the present time 2,897 disabled applicants are awaiting rehabilitation service.

3. Approximately 237 fewer persons will be rehabilitated during this fiscal year than would have been had the full budget request been allowed.

It is difficult to see why the Congress and the States would not spend every cent needed for this purpose. The handicapped individual is often an expense to the taxpayer, yet he can be rehabilitated for approximately the same cost required to maintain him on relief for a year. Once the money is spent on him, the taxpayer is through. The sum and substance of the matter is that when we eliminate funds available for rehabilitation, we are actually increasing the cost of relief in much larger proportions.

I am sure your committee will make a thorough study of all the needs in this field of work, and I hope you will recommend to the Congress an appropriation which will meet all present needs at the present time.

Mr. FOGARTY. Thank you, Mr. Albert.

VOCATIONAL REHABILITATION

WITNESS

HON. JOHN A. BLATNIK, A REPRESENTATIVE IN CONGRESS FROM THE STATE OF MINNESOTA

Mr. FOGARTY. The committee will now be pleased to hear Congressman Blatnik of Minnesota.

Mr. BLATNIK. Mr. Chairman and members of the subcommittee, I am grateful for this time granted me to appear before you today, and

to testify in favor of a substantial increase in the Federal appropriation of funds payable to the States to carry out the vocational rehabilitation program authorized by Public Law 113, Seventy-eighth Congress (29 U. S. C. ch. 4).

The recommendation of the Bureau of the Budget for this purpose is $23 million for the 1953 fiscal year—yet the facts show that this amount is wholly inadequate, and that an appropriation of at least $30 million is needed to implement the provisions of the Vocational Rehabilitation Act. I am therefore asking the subcommittee to increase this budget item by $7 million, or in other words, to raise it to a $30 million total.

As you know, the vocational rehabilitation program is a joint Federal-State program where Federal funds are matched by State funds on a 50–50 basis. However, the Federal Government has not delivered on its obligation to match, dollar for dollar, the money put up by the State of Minnesota, and the proposed $23 million appropriation makes it impossible to fully match State contributions.

Let me give you the facts. The Minnesota Division of Vocational Rehabilitation submitted a State budget for the 1952 fiscal year calling for $306,874 in Federal funds, which was the minimum amount needed to carry on the program for the current fiscal year. But Congress did not appropriate enough money last year, and so only $264,980 in Federal funds was forthcoming, or $59,894 less than the amount needed. This has meant that the division has been unable to service the ever-increasing number of cases referred to it—there is a backlog of some 1,247 applicants awaiting service right now in Minnesota. Another result is that there is some $46,496 in unmatched State case money—although this is being spent for vocational rehabilitation by special authorization of the State administration, it cannot make up the deficit in the program budget.

This year Minnesota submitted a State budget calling for $307,441 in Federal funds for vocational rehabilitation. But when the proposed $23 million appropriation is prorated among the States, we can reach no other conclusion but that my State of Minnesota will again be short some $60,000 in Federal funds to match existing State matching funds. In short, the vocational rehabilitation program will have to be curtailed again this year unless a larger appropriation is forthcoming.

It is estimated that an appropriation of $30 million will be just about sufficient to carry on the vocational rehabilitation program as it should be administered, and to match State funds that will be made available for this program. In other words, $30 million prorated among the States will meet Minnesota's needs, and also the needs of other States who are in the same position.

I do not need to discuss the merits of the vocational rehabilitation program. I think we all agree that this program to rehabilitate disabled and handicapped persons to enable them to secure remunerative employment, and to earn their own livelihood, is worthy of support. For this reason I urge the committee to increase the appropriation of aid to States from $23 million to $30 million to carry on this good work about which we are all in accord.

Mr. FOGARTY. Thank you very much, Congressman.

WITNESS

HON. HAROLD D. COOLEY, A REPRESENTATIVE IN CONGRESS FROM THE STATE OF NORTH CAROLINA

Mr. FOGARTY. Mr. Cooley, I understand you would like to make a statement on behalf of the vocational rehabilitation program.

Mr. COOLEY. I appreciate this opportunity to appear in support of an increased appropriation for vocational rehabilitation. I understand that the budgetary request is for only $23,000,000, which, of course, will be distributed among the several States, pursuant to the provisions of Public Law 113. The information which I have received from reliable sources clearly indicates that a Federal appropriation of $30,000,000 will be needed in 1953 in order to carry out the program and to give it the proper implementation.

For several years now it has been reported to me that the funds appropriated by the Congress have failed to provide adequately for vocational rehabilitation. Case service costs have increased enormously, and it is estimated that in 1949, for example, an over-all increaseof 14 percent in such costs occurred. Yet the State of North Carolina was that year allocated less money from Federal funds than it had previously received. Despite an increase of $50,000 in State funds, there was less money available for case services. In 1952, the current year, North Carolina has $71,887 in State money that cannot be matched with Federal funds, and it is expected that in 1953 the State will have some $100,000 of unmatched funds, based on the present allotment of Federal funds to the State.

I believe that an expenditure of public funds in support of vocational rehabilitation is a real investment which pays dividends not only in human welfare and in terms of financial security for those rehabilitated, but it is actually an investment which pays dividends in dollars and cents. It is estimated that each rehabilitated person eventually returns in taxes 10 to 1 the dollars spent on his rehabilitation; but assuming that only the actual outlay of money spent for rehabilitation is returned, the program is well worth while, and I urge that appropriations be provided which will make an expansion of the program possible. To curtail the program at this time would in my opinion prove to be false economy rather than an actual monetary saving.

The State of North Carolina had submitted a budget of $895,490 for matched Federal funds to the Office of Vocational Rehabilitation for 1952. The department of public instruction of the State, in which the vocational rehabilitation program is carried out, now estimates that available Federal funds for 1952 will be $128,022 less than this amount. This will result in a severe disruption and dislocation of the program, in that unmatched State money in the sum of over one hundred thousand will be accumulated; there will not be sufficient funds or staff to serve the ever-increasing number of cases, of which 1,206 are now awaiting service; some 320 fewer persons will be rehabilitated in 1952 than would have been possible if the full budget request had been obtainable.

This is the background of past inadequate appropriations. Coming down to 1953, the State of North Carolina has submitted a budget calling for $926,495 in Federal funds. This is considered the bare minimum on which to operate and to serve the handicapped of our State. It is expected that from this amount some 2,784 handicapped persons can be rehabilitated in 1953, or 232 more than will be serviced in 1952.

In order to accomplish this minimum service, a Federal appropriation of $30,000,000 will be needed for payments to the several States. The present budget request is for $23,000,000 or $7,000,000 less than appears to be necessary for the full implementation of the vocational rehabilitation program.

While it is highly desirable for the Congress to keep appropriations down to a sharp level of economy in view of our large expenditures in the fields of internal security and national defense, I believe that we should not effect these economies at the expense of those who are unable to help themselves. From a practical point of view, also, it is highly desirable in this period of labor shortages that every person potentially able to work and contribute his part to our industrial program should be helped to attain such a degree of participation and self-sustenance. Otherwise, these unrehabilitated citizens will necessarily be a drain upon our charitable organizations and will be denied the opportunity to be independent and to make a place for themselves in the economic system of our country.

Mr. FOGARTY. Thank you, Mr. Cooley.

VOCATIONAL REHABILITATION

WITNESS

HON. A. S. J. CARNAHAN, A REPRESENTATIVE IN CONGRESS FROM THE STATE OF MISSOURI

Mr. FOGARTY. The committee is happy to now have before it Congressman Carnahan from Missouri.

Mr. CARNAHAN. Mr. Chairman and members of the committee, I wish to present to you some of the aspects bearing upon the importance of sufficient appropriation in the 1953 fiscal year for proper operation of the rehabilitation program under Public Law 113. This act obligates the Federal Government to reimburse State expenditures for administrative, guidance, and placement costs, and part of expenditures for case service. Congress has not met this obligation in recent years.

It is my understanding that the amount of $30,000,000 for the 1953 fiscal year is needed to meet the obligations of the Federal Government under this law. The Bureau of the Budget has recommended only $23,000,000.

I know first hand what the cut in the 1952 fiscal budget meant to the State of Missouri. Missouri's grant was $104,850 less than the amount needed, and it adversely affected the rehabilitation program in the State as follows:

1. At present, the Missouri State Legislature has $31,149 appropriated for case services that according to the intent of Public Law 113 should be matched with Federal funds before expenditures of same can be made.

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2. The funds are insufficient in the State to serve the ever-increasing number of cases referred to them.

3. Nine hundred and ninety-six applicants in the State are presently being denied needed services because of inadequate funds.

4. About 540 fewer persons will be rehabilitated in 1952 than would have been if the full budget request had been allowed last year.

The Missouri Rehabilitation Association needs $566,335 in Federal funds for the fiscal year 1953. It is the minimum needed to do what they are expected to do for the handicapped and it would enable them to rehabilitate approximately 650 more persons in 1953 than will be rehabilitated in 1952.

In order for Missouri to have these needed funds, a Federal appropriation of $30,000,000 is necessary.

Inadequate Federal support has contributed to the Nation being deprived of manpower that could be made available by rehabilitating the handicapped. Thousands of handicapped persons are being forced to accept public assistance rather than the rehabilitation they prefer. Severely handicapped persons are being denied some of the more expensive services, and the State agencies are forced to reject many referrals from all sources, particularly from welfare departments administering assistance to the disabled. Yet rehabilitation is much cheaper for the taxpayer and better for the individual.

An appropriation of $30,000,000 will mean that more than 85,000 persons throughout the United States will be rehabilitated instead of the 66,000 in 1951. I sincerely hope that the members of this committee will assist those people in the United States who need rehabilitation by recommending that $30,000,000 be appropriated for vocational rehabilitation.

Mr. FOGARTY. Thank you Mr. Carnahan.

Mr. CARNAHAN. I appreciate being afforded the opportunity to present my views to this committee. Thank you very much.

VOCATIONAL REHABILITATION

Mr. FOGARTY. Before we leave the subject of vocational rehabilitation I would like to insert in the record statements on this subject which have been submitted to the committee by Representative Toby Morris, of Oklahoma, and Congressman Bakewell, of Missouri, as well as a statement submitted by several members from Oklahoma and a letter from Representative Patten.

(The statements are as follows:)

STATEMENT OF HON. TOBY MORRIS, A REPRESENTATIVE IN CONGRESS FROM THE STATE OF OKLAHOMA

Mr. Chairman and members of the committee, I am indeed grateful to you for permitting me to make this statement in behalf of vocational education. I hope the committee will be as liberal as possible with appropriations in this regard.

I wish to quote an article by Hon. Roy Stewart, appearing in the Daily Oklahoman, Sunday, February 3, 1952, titled "Foreign Vocational Students Cost United States More Than Its Own," as follows, to wit:

FOREIGN VOCATIONAL STUDENTS COST UNITED STATES MORE THAN ITS OWN

WASHINGTON, February 2.—More Federal dollars are being spent to bring foreigners to this country to study American production methods, acquire technical skills, and get other vocational training than are being spent on all vocational education in the United States.

To bring 13,069 persons here for training and study in fiscal 1951, the United States paid out $28,178,010, while in Federal funds it spent approximately $26,622,938 on the 3,363,684 boys, girls, and adults getting vocational training in the public school system.

The one figure is called approximate because it is for fiscal 1950, last year for which accurate figures are available, but funds were down slightly the following year ending last June 30.

No increase was recommended in the recent Presidential budget submitted to Congress.

The Federal Government spent slightly more money bringing 264 vocational students here under the point 4 program than it did on the 53,828 vocational students in Oklahoma. The figures are $554,400 and $551,805, respectively.

More than 12 times the Federal money spent in Oklahoma in fiscal 1950 on vocational education was spent to bring 3,101 students from Germany and Austria here to study.

It was from Germany that we got most of our ideas about vocational education following World War I. They started their system in the 1880's.

Vocational workers say they have no quarrel with educational assistance given foreigners under either the point 4 or economic cooperation programs, but they say also our own needs are being neglected.

They point to need for both industrial and farm production, with skill in homecrafts to get more efficiency, create new skills for a peak labor market and help prevent inflation by better production.

They know also Russia did not just grab off scientists and slave laborers in Germany, but took vocational teachers too. By the scores, as former Gen. Lucius D. Clay's reports show, for the expanding Soviet vocational plan. Productive skills have been a great Russian weakness.

Yet nationally, with a slightly higher ratio than exists in Oklahoma, only 50 percent of the Nation's eligible schools have vocational programs.

In vocation agriculture alone, a field in which it is a national leader, Oklahoma has 349 departments with 357 teachers, while 169 eligible schools await Federal funds which State and local boards match almost four to one.

Not included in cost of the Federal student importation program given above are funds spent on 101 persons brought here for technical training which was unlisted on security grounds.

Neither was the $551,808 cost of teaching and materials for binational cultural centers in 18 Latin-American countries, or the $1,027,679 cost to this Government to teach English in United States information offices abroad.

The Federal Government is spending $273,852 in Oklahoma to teach vocational agriculture, while the State puts up $325,363 and local boards supply $932,336 plus buildings and equipment.

We brought 839 persons here from Japan and the Ryukyus in an "exchange" program, at a cost to the United States of $1,679,000.

In eight areas of technical study, we brought 2,800 persons here to get skills under the ECA program, at a cost of $4,200,000, the records show.

We gave $284,000 toward vocational education of 67 Finnish students and credited the amount to the Finnish war debt. That is roughly half what the Government spent in Oklahoma on 53,828 students.

Under the Fulbright program of education for Europeans, we spent $6,665,000 on 1,503 students, getting that money by selling surplus American property abroad and converting into foreign exchange.

We spent $134,000 on 322 students studying abroad under the Smith-Mundt grants for assistance to American-sponsored schools in the American Republics.

As aid to 2,894 Chinese students here we spent $3,637,000 in Federal funds, nearly one-eighth as much as was spent here on 3,363,684 students.

Under Smith-Mundt grants and the Fulbright program in another joint move, 633 students came here at Treasury cost of $1,766,850. And another group of 636 had an average cost of $3,659 for a total of $2,327,750 in Smith-Mundt grants alone.

Also, I wish to quote an editorial appearing in the Oklahoma City Times under date of February 8, 1952, as follows, to wit:

"IT PAYS TO BE A FOREIGNER

"Recent disclosures showing that the Federal Government is spending more money to bring foreign students to this country to study American production methods, acquire technical skills and get other vocational training than it is

spending on all vocational education in the United States, may bring twofold reaction.

"One side likely will say that if Uncle Sam is going to spend so much money giving aid to foreigners, the amount appropriated for vocational and all other types of education of the young people here should be tripled or quadrupled. The other side likely will advocate saving the money spent to educate foreigners and home people alike and let each country, state or district educate its own on its own power.

"The report indicates that it pays to be a foreigner when seeking vocational education. The Federal Government last year paid out $28,178,010 to bring 13,069 foreigners here for study, while it spent only $26,622,938 on the 3,363,684 boys and girls getting vocational training in this country's public schools.

"In the same year the Federal Treasury paid out $284,000 toward vocational education of 67 students from Finland. That amount is about half of what the Government spent in Oklahoma on 53,828 vocational students.

"The system is out of joint. Federal control of education is the last thing to be desired in this country, but neither is it desirable for this Government to take over the vocational education program of a dozen or more foreign countries when many of our own school districts need help.

"I respectfully request the committee to give careful and earnest consideration to the facts presented in these newspaper articles."

STATEMENT OF HON. CLAUDE I. BAKEWELL, A REPRESENTATIVE IN CONGRESS FROM THE STATE OF MISSOURI

Mr. Chairman and gentlemen, I respectfully request an appropriation for vocational rehabilitation sufficient to enable the various agencies engaged in this field in the various States to carry out their program.

Of all the effors of the Federal Government to help its citizens, the State-Federal program of rehabilitation appears to me to be one of the soundest. Helping a handicapped person overcome his disabilities and become a self-supporting, tax-paying citizen has a great appeal to me. It is a humanitarian enterprise which does not actually cost the taxpayers anything in the long run, since it helps to hold down relief costs and makes taxpayers out of tax consumers.

The appropriation recommended by the Bureau of the Budget for fiscal 1953 is $23,000,000. The National Rehabilitation Association, of which our distinguished colleague, the gentleman from North Carolina, Mr. Barden, is vice president, has estimated hat in order to implement the program set up by Public Law 113 of the Seventy-ninth Congress, it will require $30,000,000 during fiscal 1953.

The sums paid by the Federal Government in implementation of this program are matched by State funds. My own State of Missouri appropriated $230,000 for this purpose for fiscal 1952. It is estimated by the Missouri branch of the National Rehabilitation Association that the Federal allotment for this year is more than $100,000 less than will be required to match State funds appropriated for case services. Translated into services available, this means that more than 1,000 applicants for assistance will have to be turned away.

In support of my statement that the sums are not gratuities but that this is, to a large extent, a self-liquidating program, I should like to cite the case which is pointed out by a factory superintendent of a plant in Missouri. He states that in his plant there are six people now employed who have definite handicaps which they have been helped to overcome by the National Rehabilitation Association. If it were not for the association's efforts in assisting them to overcome their handicaps and in obtaining employment for them, they would now be unemployed and wards of charity of both the State and Federal Governments. As it is, each of these six men will pay an average income tax of $300 this year. Remember, Mr. Chairman, these men will continue to pay throughout future years a similar income tax instead of having to be supported by public-welfare agencies. Based upon the Missouri State quota, 16,666 people would have to pay an average income tax of $300 in order to reimburse the Government for expenditures for vocational rehabilitation. The records show that the association can do better than that. Therefore, I say that this is to a large extent a self-liquidating program. In addition, there is a humanitarian appeal which I hope will cause this subcommittee to vote an appropriation adequate to enable the national association to carry out its program for the coming fiscal year.

I thank you for your courtesy and attention.

STATEMENT OF MEMBERS OF THE OKLAHOMA CONGRESSIONAL DELEGATION

Mr. Chairman and members of the subcommittee, we the undersigned members of the Oklahoma delegation in the United States House of Representatives are grateful for this opportunity to make a statement on behalf of the appropriation for "vocational rehabilitation." Through this program, the productive capacity of the disabled individual is salvaged, not only for himself but for society, and he is thereby saved from becoming an unproductive charge on the State.

We can appreciate the weight of responsibility and concern on your shoulders in your consideration of allocating available funds to the various agencies and activities of Government. I am sure that you will give every consideration to vocational rehabilitation as a worthy program, along with the many others you must consider.

We are indebted to Hon. Voyle C. Scurlock, director of vocational rehabilitation for the Oklahoma State Board of Vocational Education, for some interesting information concerning the work in Oklahoma. We should like to present some of this information to your honorable subcommittee.

Forecast of Federal funds for 1952 is $483,192, which is $135,780 less than the $618,972 figure submitted as the minimum needed to carry on the rehabilitation program envisaged under Public Law 113 of the Seventy-eighth Congress. The effect of this cut on the program in Oklahoma is as follows:

(1) There are $45,956 of unmatched State funds for case services.

(2) There are neither the funds nor the staff to serve the ever-increasing number of cases referred. 2,897 disabled applicants are awaiting rehabilitation service at this time.

(3) Approximately 237 fewer persons will be rehabilitated during this fiscal year than had been provided under the budget submitted.

For the fiscal year 1953, a State budget for the State of Oklahoma has been submitted calling for $622,978 in Federal funds, which the State board feels is the minimum needed to carry out Federal and State commitments. This amount will rehabilitate approximately 1,600 in 1953, or about 259 more than are expected to be rehabilitated in 1952.

We understand that experience of those working in vocational rehabilitation shows that a handicapped individual can be rehabilitated for approximately the same cost as it requires to maintain him on relief for 1 year, and this is not a recurring expenditure. The Federal Security Agency estimates the cost of the new Fourth Category of Public Assistance to the Totally and Permanently Disabled will be $130,000,000 by January 1, 1953. This means more than twice the present cost.

Mr. Scurlock, in a recent letter to us, among other things states:

"Actually, a total of $30,000,000 in Federal funds is needed for 1953, to enable the national program to develop, and this is a modest request, we believe, which can be fully justified in terms of State appropriations and persons served."

There is a definite limit to the number of disabled persons that can be served by State rehabilitation agencies with present funds and staff. This means that many must wait their turn, and in the meantime there is increasing pressure on State welfare agencies to accept many of these people for public assistance. Thus, the limited funds available for rehabilitation are actually tending to increase the cost of relief, and any saving effected in this manner is truly false economy.

In view of this information, we respectfully request your most careful and earnest consideration to the requests for appropriations for the Vocational Rehabilitation program.

TOBY MORRIS,
TOM STEED,
PAGE BELCHER,
JOHN JARMAN,
VICTOR WICKERSHAM,
WILLIAM G. STIGLER,
CARL ALBERT.

HOUSE OF REPRESENTATIVES,
Washington, D. C., February 18, 1952.

Hon. JOHN E. FOGARTY,
Chairman, Subcommittee of the House Appropriations Committee,
House of Representatives, Washington, D. C.

MY DEAR COLLEAGUE: The Division of Vocational Rehabilitation of the State of Arizona has requested Federal funds in the amount of $64,518 for the year 1952 which is $14,641 less than the amount they anticipate will be needed. They state this cut will affect the State of Arizona in several ways. First, they will be compelled to close their office at Flagstaff which serves the five northern counties of the State. Further, they state they do not have sufficient funds or staff to properly service the increasing number of cases referred to them. At present they have 384 applicants on their waiting list. The program is further curtailed by the fact they will service 35 fewer people in 1952 than would have been had they received their full budget request.

For 1953 they have submitted a State budget calling for $100,384 in Federal funds. It is anticipated that this amount if granted will enable them to rehabilitate approximately 275 people in 1953 or 75 more than they expected in 1952.

In view of this picture as it concerns Arizona, I urge that every consideration be given by your committee in making available the $30 million which has been requested for this program.

Thanking you, I remain

Sincerely yours,

HAROLD A. PATTEN, M. C.

VOCATIONAL REHABILITATION

Mr. FOGARTY. Also on the same subject of vocational rehabilitation, I ask that there be inserted at this point, statements by Harry C. Schmid, president, American Vocational Association and State director of vocational education for Minnesota; and Dr. Howard A. Burk, chairman, department of physical medicine and rehabilitation at New York University-Bellevue Medical Center.

(The statements are as follows:)

STATEMENT SUBMITTED BY HARRY C. SCHMID, PRESIDENT, AMERICAN VOCATIONAL ASSOCIATION AND STATE DIRECTOR OF VOCATIONAL EDUCATION FOR MINNESOTA

I am presenting this statement as the president and official representative of the members of the American Vocational Association, who are located in every State and in almost every community of the Nation. The American Vocational Association, which is a professional organization, is the second largest national educational association in this country.

From numerous conferences with leaders in the American Vocational Association from all parts of the Nation, I am sure that this statement represents the thinking of our group as well as the opinion of lay friends who are interested in the further development and improvement of vocational education as a definite and integral part of the total school system.

During December 1951 and January 1952 a national survey was made by the vocational directors of the several States of the Nation, to determine the needed expansion of the vocational programs in 1952–53, as compared to the programs in 1951–52. Each State director of vocational education was asked to furnish certain information as to the additional needs in the several phases and branches of vocational education in 1952–53 and to indicate the amount of Federal funds necessary in order for these programs to be inaugurated and carried on. Each director was requested to include only the most urgent needs and to list schools that already have facilities for carrying on programs and only need aid toward salaries for teachers to make it possible for the program to begin operating.

I am submitting herewith a national summary of the reports from the several States showing the 1952–53 need for new programs, additional teachers, and the amount of funds necessary to put the additional programs into operation in the several States.

Summary of a national survey showing the need for expansion of the vocational education program in 1952–53 as compared to the program in 1951–52

Agricultural education:	
1. Number of new departments that should be established in 1952–53	750
2. Number of additional teachers needed for new departments and number of additional teachers needed in the old departments	1,075
3. What would be the total cost of the foregoing?	$3,507,192.01
Distributive education:	
1. Number of new cooperative programs that should be established in 1952–53	456
2. Number of additional teachers needed for cooperative, part-time and evening classes	817
3. What would be the total cost of the foregoing?	$1,867,270.39
Home economics education:	
1. Number of new departments that should be established in 1952–53	771
2. Number of additional teachers needed for new departments and number of additional teachers needed in old departments	1,493
3. What would be the total cost of the foregoing?	$3,247,074.65
Trade and industrial education:	
1. Number of new all-day programs that should be established in 1952–53	548
2. Number of new diversified occupations programs that should be established in 1952–53	436
3. Number of additional teachers needed for all-day, part-time and evening classes	2,218
4. What would be the total cost of the foregoing?	$4,320,048.06
Vocational guidance: Number of new local counselors	1,877
Total cost of needed expansion	$12,941,586.01

In reporting need for expansion, State vocational officials were urged to report needs based on realities with respect to factors such as: Need and demand, requests and applications for programs, availability of teachers, on the assumption that Federal funds would be available at the same ratio to State and local funds as now exists in the State.

It should be kept in mind that the above-proposed expansion could be put into operation to serve a larger percentage of our people who need and could profit by vocational training without additional cost for administration, supervision, and teacher training.

From the best information we have been able to obtain, we are now reaching with vocational training only about 50 percent of those who need such training. The percentage varies from State to State.

We are also told that Russia is continuing to expand vocational education. The same is true in the satellite countries. In the past, one of the great weaknesses of Soviet Russia has been its lack of productive capacity. Russia has both the human and natural resources so essential in the development of productive capacity. In the past they have been unable to produce efficiently because the masses of the people were untrained, unskilled, and lacked technical and scientific knowledge. They are today doing something about their human resources. They are training their people and, as a result, are stepping up their productive capacity at an ever-increasing rate.

During 1949, I was stationed in Berlin, Germany, as an employee of the Office of the United States High Commission for Germany. My job was to work with German vocational teachers and authorities in the city of Berlin. As a result of my assignment I learned that the Russians had taken out of Berlin and East Germany, a large number of highly trained and skilled vocational instructors. They were using them in the Russian schools to train communistic youth and adults so that they might acquire the skills and technical knowledge so essential to production know-how.

I understand from friends who recently returned from Germany that the Russians are still taking out of East Germany many vocational instructors and using them in their own schools to train their own people. Many of them have not gone there of their own free will, while others have been forced to serve the Soviets. The Kremlin gang is well aware of the facts that if the Russians are

to be successful in their cold war, or in any major hot war, their people must greatly improve their efficiency in the production and processing of goods.

It is a well-known fact that we are battling communistic aggression abroad and dangerous inflation at home. To meet the world challenge and our own domestic needs, we must increase production in this country.

Fundamentally, the only way to lick inflation, which is such a great threat to the well-being of the American people, is through adequate production which means for us at the present time increased production per man and full utilization of our total manpower. This means vocational training for a larger percentage of our people.

The vocational schools and educators are ready now to do their full share in helping to meet our production goals. They only await the funds with which to do the job. With many billions of dollars now available and more to be made available for defense production, with a lag in production, with lay-offs in some industries because of lack of materials which will result in unemployment compensation to come from the Federal Treasury, with many of those who are being laid off in need of special training—it seems only an act of good wisdom to make adequate funds available so that vocational educators may do their share in training people to help increase American production.

We are now being called upon to expand our services for the physically handicapped. Experience has shown that one of the great bottlenecks in helping to prepare the physically handicapped for work is that of adequate vocational training. A person, whether handicapped or sound in limb and body, must first be employable—know how to do something well—before he can profitably be employed. Vocational education has proven beyond a shadow of a doubt, over a period of 30 years, its worth to the people of this Nation.

As far as purchasing power, Congress is appropriating less money for vocational education than was true in 1937–38. From 1937 to 1946 Congress appropriated a little more than $14,000,000 annually for carrying out the provisions of the then George-Deen Act. After this act was amended and replaced by the George-Barden Act which authorizes $29,300,000 annually, Congress has never appropriated the full authorization. To be exact, the maximum appropriation ($19,977,760) was made in fiscal 1951. Last year the appropriation was reduced in the amount of $854,499. This means that as Russia and her satellites increased vocational training, we in this country are decreasing Federal appropriations for the vocational training of our own people. If we were reaching all the people who need vocational training it might be a different story. Unfortunately we are reaching only about 50 percent of those who need such training.

All over the Nation school boards are requesting aid for establishing various phases of vocational education in schools that at present are giving little or no vocational training. Youth and adults are begging for opportunities to enroll in vocational classes. Many of our large trade schools that are making such a tremendous contribution today to our defense program are being forced to turn youths and adults from their doors because of lack of facilities and lack of funds to pay additional teachers needed.

We know that at the present time there are approximately 5,000 high schools in this Nation serving rural people that do not have programs of vocational agriculture. We also know that we have enrolled only approximately 40.3 percent of the youth that should be enrolled. We should have enrolled approximately 1,000,000 farm youths in order to provide the number of new farm operators needed each year. Approximately 400,000 farm boys are presently enrolled in the vocational agricultural program.

At the present time we have in this Nation approximately 7,000 public secondary schools that do not have any program in homemaking education. In the field of trade and industrial education, we are providing training for only a little more than 50 percent for those who need such training. Yet industry in all parts of the Nation is calling on these schools to step up training programs in order to meet training needs in the skilled and semiskilled trades.

At present many people are being laid off from their employment in nondefense industries. Additional vocational funds are needed for use in providing training for these people in skills necessary for employment in defense industries.

In light of the above we earnestly urge Congress to appropriate for the year ending June 1953 the full $29,300,000 authorized under the provisions of the George-Barden Act. This amount is desperately needed if America's vocational schools are to do their full share in preparing people for essential jobs so important to our production needs.

NEW YORK UNIVERSITY-BELLEVUE MEDICAL CENTER
OF NEW YORK UNIVERSITY,
INSTITUTE OF PHYSICAL MEDICINE AND REHABILITATION,
New York 16, N. Y., February 20, 1952.

Congressman JOHN FOGARTY,
New House Office Building, Washington, D. C.

MY DEAR CONGRESSMAN FOGARTY: I sincerely regret that other responsibilities have made it impossible for me to be present personally at the hearings which are being held in connection with the request of the Office of Vocational Rehabilitation for the 1953 fiscal year appropriation bill. In my capacity as professor and chairman of the Department of Physical Medicine and Rehabilitation, New York University-Bellevue Medical Center and other nongovernmental responsibilities concerned with rehabilitation and services to the handicapped, I sincerely urge your committee to give the utmost consideration to this request.

The need for maintaining and increasing rehabilitation services for the handicapped through the program of the Office of Vocational Rehabilitation has been pointed out most forcefully in the recent report of the task force on the handicapped to the Office of Defense Mobilization. This study is one that is long overdue. Although our Nation is committed to a tremendous defense production program and has an established policy on the stockpiling of raw materials, we have until now overlooked one of the most vital factors in defense production—the contribution our handicapped can make to increased manpower.

In its opening paragraph, the report calls attention to the recognition by the Congress, governmental agencies, business, and labor groups and others concerned with defense production of the impact on production of the loss to our labor force of the 621,000 young Americans who were inducted into the Armed Forces by the Selective Service System during the year ended September 30, 1951. It then adds pointedly, "Yet, during the same year, our economy lost 250,000 workers through disablement as a result of injury and disease. We lost them without fanfare, through the 'back door' of our national consciousness with too few of us realizing the enormity of the loss."

While the loss to production of those entering the military service is in the national interest and is temporary, as the report stresses, the loss of those suffering disablement is for the most part unnecessary and at the expense of the national interest. Unfortunately, a high percentage of the disabled group are needlessly but permanently lost to production.

Although the report of the task force on the handicapped is directed primarily to the ability of the Nation's disabled, with proper rehabilitation and job placement services, to contribute their productive skills and talents to the defense effort, there are equally important implications in the report that are indirectly related to our defense effort.

After evaluating the results of available surveys, the task force concluded that there are conservatively 2,000,000 physically handicapped persons in our Nation who could and should be rehabilitated and placed or advanced in employment. With the medical advances that are currently being made that prevent death, but leave survivors disabled, we can expect this number to increase substantially in the coming years.

Improvement in the health of the American people since 1900 constitutes one of the great achievements of the past half century. It has been estimated from fossil findings that in prehistoric times, the average man lived about 18 years, his life frequently terminating in violent death. This had advanced to around 25 during the time of the ancient Romans and by 1900, in the United States, had reached an unprecedented 49.2, a gain of nearly 100 percent in 2,000 years. From an average lifetime of 49.2 years in 1900 we have, in but a short 50 years increased man's life expectancy in the United States to 67.2 years, a gain of more than 18 years in less than 50 years. When asked at the beginning of 1950 to comment on the events of greatest significance which occurred in the first half of this century, Mr. Bernard M. Baruch, with his usual sagacity, listed this increase in man's life span as having more profound medical, social and economic implications than such things as atomic energy, air transportation and improved communication.

The control of disease and the lengthening of average lifetime stem from the great advances in medical science, the increased availability of medical services, the progress in public health practices, and the rapid rise in our standard of living. Every branch of medicine has made great progress through discovery and invention. A new era of medical science set in less than a century ago with

the discovery of the bacterial origin of infection. Today, with recently developed chemical substances, antibiotics and hormone therapy, we are on the threshold of another new era.

These scientific and social advances have saved lives but, at the same time, they have created new problems. For example, a few years ago the term "paraplegia" was relatively unknown except in medical circles. We heard little of "paraplegia" as most individuals who suffered a severance of the spinal cord died within a short time of infection. Now these infections can be controlled, with the result that we find a growing number of persons in our Nation who are severely handicapped by the loss of function and feeling in the lower extremities. At the same time, however, we have demonstrated that with proper rehabilitation services these people can live independent, dignified lives of self-sufficiency and and productivity. The same example holds for numerous other diseases and disabilities which leave those inflicted with permanent and often severe disability.

Lacking specific measures in the cure of many of these chronic diseases and disabilities, we must look to rehabilitation to teach those afflicted with disability to live and to work as effectively as possible "with what they have left." Until medicine finds the specific answer to the problems of diseases of the heart and circulation, rheumatic fever, arthritis, cerebral palsy, multiple schlerosis, poliomyelitis, and the other crippling diseases, we must utilize the techniques of rehabilitation to teach the disabled to live within the limits of their disabilities but to the hilt of their capabilities.

Fortunately, as the task force on the handicapped pointed out in their report, our Nation is now in a position to do more to overcome the handicapping effects of disability than at any time in our history. We have reached this favorable position because of advances in medical knowledge, the development of rehabilitation centers, improved methods of education for the handicapped, better prosthetic aids, broadening of service under the Federal-State vocational rehabilitation programs, expanded rehabilitation services for disabled veterans, expansion of voluntary services and of insurance and related coverage, better placement methods and increased understanding by management, labor and the public.

Basic to all of these developments, the task force has pointed out, is our changing concept of disability. "When physical standards were drawn up during the first and second decades of this century," they stated, "they were influenced by the 'anatomical' concept of medicine which was then in sway. Competence was measured in terms of anatomical perfection. A man was either fit or unfit to work, depending on whether or not he was anatomically whole. It was all or none. A man could do the whole job or none of it. He was disabled for all work if he was disabled for any part of it." With the development of the physiological or functional concept and the specialization and subdivision of jobs into their components, the "perfect anatomical specimen" concept of man is no longer valid for determining suitability for employment.

With the growing incidence of chronic disability, it is readily apparent that the economic, social and medical costs of caring for the increasing number of handicapped citizens in our nation will increase proportionately. Stating the problem in its simplest terms—we are going to have more disabled persons in our Nation in the future; the cost of services to our disabled population will increase correspondingly; is it wise, economically, socially and medically, to invest a larger initial sum in the rehabilitation of these disabled citizens to permit them to become economically productive and self-sufficient, or to spend smaller sums in their care and maintenance over longer periods of time?

That the initial investment of funds in expanded rehabilitation services pays economic dividends by reducing the cost of extended care and maintenance has been amply demonstrated. Studies of the Federal-State program have shown repeatedly that for every $1 invested by the Government in his rehabilitation, the average disabled man or woman will repay $10 in Federal income taxes alone during his lifetime. Although not so directly measurable, equal dividends will accrue from the Federal funds invested in rehabilitation through support of the National Institute of Neurological Diseases and Blindness.

I would also like to call your attention to one striking example of the economic dividends of rehabiltation in one hospital in New York City with which I am associated—Goldwater Memorial Hospital. In his annual report for 1951, Dr. Marcus D. Kogel, commissioner of hospitals for the city of New York, makes the following statement:

"Through concentrated rehabilitation programs, it has been possible to shorten hospital stays considerably. A typical example are the figures reported from the rehabilitation service at Goldwater Memorial Hospital. In 1951, 168 patients were discharged and transferred from this service. Ninety-one patients were placed in suitable homes. From past experience, it is fair to assume that each of these patients would have stayed at least one more year at Goldwater. At present hospital costs, the upkeep of these patients would have come to $237,510 (per diem costs of $7.15 or a year cost of $2,609.75 per patient multiplied by 91 patients). This figure accentuates the economic desirability of this program in any hospital. The human value, of course, cannot be measured in money."

As present, Federal-State vocational rehabilitation programs have funds to rehabilitate only 25 percent of the 250,000 persons disabled and in need of rehabilitation services annually. The remainder of the group continue to be unproductive citizens and to be dependent for their support and maintenance upon their families or upon local assistance programs for which the Federal Government assumes a major financial responsibility. Nor does the Federal Government at the present time appropriate sufficient matching funds to take full advantage of the efforts which the States are already making. Similarly, although there are modest amounts in the request of the National Institute of Neurology and Blindness for research and training stipends in blinding eye diseases and neurological diseases that will be of great assistance, there are no funds either available now or in the proposed budget to provide for research fellowships, training stipends, or the teaching of methods of rehabilitation for those disabled by neurological diseases.

I sincerely hope that your committee will take the factors outlined above into account in your decision regarding the requests of the Office of Vocational Rehabilitation and the National Institute of Neurology and Blindness.

Respectfully,

HOWARD A. RUSK, M. D.,
Professor and Chairman, Department of Physical Medicine and Rehabilitation.

NEUROLOGICAL DISEASES AND BLINDNESS

WITNESS

HON. CHARLES B. DEANE, A REPRESENTATIVE IN CONGRESS FROM THE STATE OF NORTH CAROLINA

Mr. FOGARTY. The committee now has before it Representative Deane of North Carolina. Mr. Deane, I believe you have a statement for us.

Mr. DEANE. I have come here today to testify on behalf of the National Institute of Neurological Diseases and Blindness. Let me say in passing that this institute does not have a separate appropriation but comes under the "general operating expenses" of the National Institutes of Health. As such, its tragic lack of funds may still have escaped your close attention.

Indeed, it would have escaped my attention if one of its problems were not so close to me. I want to speak for a moment of a friend of mine who is certainly known to some of you, whose father was known to many of you, whose whole family has served this country well for many generations. The friend I am speaking of is Max Gardner, Jr., of Shelby, N. C., whose own promising political career ended abruptly and tragically on a day shortly before Christmas, 1949.

Max Gardner, Jr., at this moment is lying in a hospital bed in Albany, N. Y. The disease he is suffering is an incurable one; nor does it respond to any specific treatment. It is not likely that Max Gardner will die of it for some time; and it is even probable, I understand, that paralyzed and helpless as he now is, he will suddenly arise and he will walk again. But just as inevitably and insidiously, this

disorder will recur to alienate him once more from the normal useful and enjoyable activities which once seemed his birthright.

The name of this dread disease, gentlemen, is multiple sclerosis. It is a name, I know, which is becoming more and more familiar to us—even while we ignore its tragic consequences. Max Gardner is not alone in suffering this disorder; over 200,000 Americans likewise endure the disease. Their hope and Max Gardner's is the same—that scientific research will provide the cure or treatment to free them from this strange bondage.

Such research, I understand, is being pursued. I understand also that a very large proportion of research into this disorder is being supported by the National Institute of Neurological Diseases and Blindness through grants-in-aid to non-Federal universities and institutions. I further understand that the grand sum allocated for this purpose in fiscal year 1952 is $150,000.

In this coming year apparently further allocation of funds for research into this neglected area does not seem probable; indeed, it would almost be impossible. You all know that the National Institute of Neurological Diseases and Blindness has been allocated funds in this its first year of operation in the amount of $1,187,400, of which $1,015,000 goes for research grants and some $85,000 for direct operations. You also know that the President's budget for 1953 simply maintains this token budget at the 1952 level, with the exception of an extra $75,000 for initiation of a research program at the Public Health Service's Clinical Center.

But multiple sclerosis is not the only research problem with which this Institute is concerned. Far from it. Let me call the roster of some of the neurological and sensory disorders which we ourselves named as its responsibility when we established it by Public Law 692: cerebral palsy, epilepsy, poliomyelitis, muscular dystrophy, diseases causing blindness and deafness, meningitis, encephalitis, Parkinson's disease and a wide variety of crippling injuries to the brain and spinal cord.

These diseases affect 10 million persons in the United States. Another 10 million persons suffer less irreversible neurological disturbances such as neuralgia, neuritis, Bell's palsy, migraine and other forms of chronic headache.

These disorders are the leading cause of permanent crippling in this country and the third cause of death in the United States.

Finally, these disorders are incurable.

You have, I know, heard some, if not all, of these statistics before. You will, no doubt, agree that they are large and that they represent a tragic situation, indeed. Yet, we in Congress, I think, are accustomed to hear statistics ring out like the monotonous entries of the office adding machine. Let us think of these statistics for a moment as thousands and thousands of Americans, civilians and soldiers, confined to beds and wheelchairs, cane or crutch, supported by braces—so limited in movement that the casual procedures of sleeping, eating, and personal hygiene become shameful struggles. This is the fate suffered by Max Gardner, Jr.

We can think of these sufferers in another way. Let us assume that 260,000 totally blind persons in this country came to Washington to ask our aid. Every sixth person, gentlemen, we should meet on Washington's streets would be groping toward us with cane or dog. Or

again, if the 350,000 cerebral-palsied children also came to this city—if they could come—but that would break our hearts.

These sufferers, however, do not need our sympathy so much as our help. As you members of this subcommittee know better than I, medical research in other areas has brought longer life and surcease from pain for countless millions of our fellow citizens. This subcommittee, moreover, has provided and is now providing help for countless others suffering from heart disease, cancer and mental disorders. No logic or justice whatsoever that I can see can possibly explain the discrimination apparently made against those suffering the terrible and irrevocable disturbances of the nervous system as indicated by Neurological Institute's paltry budget.

I have hesitated, as many of you must surely know, before coming here this morning, to speak of an increased appropriation of funds for the National Institute of Neurological Diseases and Blindness. I am as well aware as all of you of the need for economy in our national budget. I stand strongly opposed to any item, however small, which would serve to add to a burden already far too heavy.

However, if we maintain the budget of the National Institute of Neurological Diseases and Blindness at the level of the President's budget we are practicing sad economy indeed.

The men, women, and children who suffer the neurological and sensory disorders are, more than any other group, the Nation's economic millstone. The 120,000 children chronically crippled by poliomyelitis, the 360,000 children crippled by cerebral palsy will not grow up to serve in our Armed Forces; neither will these serve—the 150,000 cases of multiple sclerosis, the 260,000 totally blind, the 1,000,000 blind in one eye; the 760,000 totally deaf, the 400,000 cases of aphasia, and many others.

A minority of these—and I mean a total minority of 10 percent who receive rehabilitation—will become productive; yet rehabilitation, the only treatment we have and mandatory as it is, can rarely raise the productive powers of the crippled above a very low order.

What the direct economic loss to the country is I cannot possibly imagine. But if we just look at one categorical problem with which the National Institute of Neurological Diseases and Blindness is concerned, we shall see that the economic facts are staggering. You have already heard that some 200,000 persons are absent from full occupation every day of every year as a result of head injuries alone—a loss of 416,000,000 man-hours of work. In terms of wage losses, at an average wage of $12 a day, this will amount to $624,000,000, to which if we add the costs of medical care, compensation and lost taxes, we must certainly double that sum.

Medical research, as this subcommittee knows, can cut these costs enormously. This is economy, gentlemen, though I must remind you too that the truest economy is the preservation of human life. It is for this reason that we arm ourselves for defense.

This argument, you will say, can be applied equally well to such major disease problems as cancer and heart disease. This is true, yet these problems, I must emphasize, are being attacked on a scale somewhat commensurate with their importance. How can we explain our neglect of the neurological and sensory disorders? Let us look at just a few salient facts:

Of the many millions of dollars which went into all medical research last year, only $2,800,000 has been allocated by all agencies, public and private, for the investigation of neurological and sensory disturbances—with the exception of poliomyelitis.

For diseases of the eye, for example, only $375,000 was spent last year for medical research—though $125,000,000 was expended in medical welfare. For deafness, the entire sum spent for medical research amounted to a paltry $56,000.

There are men in this country ready, willing, and able to devote their lives to the conquest of these diseases. These men, the research scientists, as you know, do not greatly profit from their work, yet they cannot work without funds.

Let me speak once again of Max Gardner, Jr. The man who is taking care of him is Dr. Robert Graves. Dr. Robert Graves is a well-known neurologist and investigator. He is chief of the department of neourology at Albany Medical College. Among the functions of this Department is the training of medical students for careers as neurologists and the pursuit of research for the development of adequate treatments of the neurological disorders.

These functions cannot now be realized to even their minimum extent. For professional teaching personnel, Dr. Graves is in need of an associate professor of neurology and an instructor in neurology to assist him. Including his own salary, the funds needed for this department are $20,500—yet only $5,500 is available. Dr. Graves is now working for nothing.

For purposes of teaching and clinical investigation Dr. Graves has no beds assigned to neurology, nor will he have one unless the costs of maintaining one—$3,000—is made available to him. While Dr. Graves has been granted limited space by Albany College for purposes of teaching and laboratory research, his present lack of funds for equipment and facilities to utilize that space will finally result in its being taken away from him.

This situation at Albany duplicates itself throughout the country. Indeed, in more than half of the Nation's medical schools, no active neurology unit exists at all.

I have spoken here of training for the first time. The National Institute of Neurological Diseases and Blindness, as you know, only has funds in the sum of $36,000 for the support of training qualified personnel in the field of rehabilitation. The training of skilled persons in this field is a major need—yet it is no greater than our need for neurologists and only slightly greater than our need for ophthalmologists.

At the present time, gentlemen, this country has less than 500 qualified neurologists to handle a patient load of at least 10 million persons. There are only 151 available positions in the country's medical schools in which additional neurologists can be trained to help shoulder this burden. In one sense, at least, Max Gardner, Jr., is fortunate. The medical attention he receives is exceptional.

Such training of neurologists is very directly related to progress in research. For the development of scientific investigation will depend not only on the laboratory investigator but on the clinician who is capable of testing and applying his results once achieved.

Research—yes, successful research—seems useless to me where it is not or cannot be applied. Yet in fact the lack of trained neurologists

is so serious that some 480,000 persons suffering a tragic disorder which can be treated by drugs are in fact not receiving such treatment. I am speaking of 480,000 epileptics, gentlemen. There are 800,000 of them in the United States. Medical men say that 80 percent of all epileptic seizures can be controlled by proper drug therapy—yet it is estimated that only 20 percent of these cases are receiving proper medication. I cannot but say that this is a national scandal.

Such a plea as I am now making, I know would meet your ready response in other years. Yet in reviewing the legislation relative to these diseases, I cannot help but notice that we have been slow to bring our support to bear in meeting the urgent needs of the millions of the halt, the lame, and the blind.

We have all heard many proposals in the past to establish such an institute as the National Institute of Neurological Diseases and Blindness. Indeed, many separate institutes were proposed for individual disease entities such as multiple sclerosis, cerebral palsy, epilepsy, and blindness. Four such bills were proposed during the first session of the Eighty-first Congress alone.

In spite of a long history of proposals and the introduction of bills by Members of Congress, the National Institute of Neurological Diseases and Blindness was not established by law until August 1950, and even then we did not see fit to activate this Institute by appropriation until the current year. When finally we did make funds available, the budget of $1,187,400 was less than was recommended by the most conservative medical authorities for research alone into just one of the major neurological diseases.

Let us no longer procrastinate in giving this Institute a working program in fact as well as in name. Let me remind you that our procrastination has not gone unobserved, and there is already evidence of doubt concerning the Government's willingness to serve the just needs of those for whom this Institute was established. Bills are still being proposed for separate institutes whose functions should only duplicate those of the National Institute of Neurological Diseases and Blindness. We can save ourselves and the country much precious time and money if we can, in fact, prove that the needs explicit in these proposals have already been fully met.

Mr. FOGARTY. Thank you Mr. Deane. We appreciate your statement on what is certainly one of the great problems of today.

Mr. DEANE. Thank you for affording me the opportunity of presenting it to you.

DENTAL HEALTH ACTIVITIES

WITNESSES

DR. E. HAROLD GALE, CHAIRMAN, COUNCIL ON LEGISLATION, AMERICAN DENTAL ASSOCIATION

FRANCIS J. GARVEY, SECRETARY, COUNCIL ON LEGISLATION, AMERICAN DENTAL ASSOCIATION

Mr. FOGARTY. Dr. Gale, you are representing the American Dental Association?

Dr. GALE. That is right, sir.

Mr. FOGARTY. Will you give the reporter your title and background?

Dr. GALE. I am chairman of the council of legislation of the American Dental Association.

Mr. FOGARTY. Your full name?

Dr. GALE. Dr. E. Harold Gale, Albany, N. Y.

Mr. FOGARTY. Do you have a statement to make, Doctor?

Dr. GALE. Yes, sir.

Mr. FOGARTY. We will be very happy to hear you at this time.

Dr. GALE. I am Dr. E. Harold Gale of Albany, N. Y., a practicing dentist of that city. I am here this morning as chairman of the council on legislation of the American Dental Association to discuss with you the budgetary recommendations of the Dental Division of the Public Health Service and, on behalf of the American Dental Association, to make certain suggestions concerning that budget.

With me is Mr. Francis J. Garvey of Chicago, Ill., the secretary of the council. At the conclusion of this statement, either of us will be glad to attempt to answer any questions the committee may desire to ask.

One item in the budget is the amount of $250,000 to be made available in the form of grants-in-aid to States for the purpose of providing funds to employ technicians to assist local communities in studying their water supplies in relation to fluoridation. The association, for reasons which I will discuss, desires to recommend that this be increased to $750,000, that it be specifically earmarked for this purpose, and that it be made available as soon as possible. One item which is not in the budget is the sum of $1,900,000 which is the balance of $2,000,000 authorized by the Eightieth Congress for the construction of a building for the National Institute of Dental Research. The association likewise recommends that this item be added to the appropriations for the Dental Division of the Public Health Service and provided at this time.

Let me discuss each of my requests in turn. The first relates to grants to assist in the study of fluoridation of community water supplies. I know that Dr. Bruce Forsyth, the chief dental officer of the Public Health Service, has already discussed this matter with you. I have not seen a copy of his testimony; so, I hope you will bear with me if I repeat some of the basic information on this subject which he may already have presented to you.

Dentists have been interested for more than 30 years in the effect the element fluorine has upon the teeth. After lengthy research it has been discovered that it has an affinity for the tooth structure which tends to reduce the number of cavities which might ordinarily be expected to occur where the teeth of children have not been exposed to the element. Where fluoride-bearing matter is used from infancy on, there can safely be anticipated a reduction of 60 to 65 percent of the number of cavities ordinarily expected to be found in a given age group. The American Dental Association carefully evaluated the studies which have been made in this field, together with the data supporting them. Finally, in 1950 its house of delegates adopted the following resolution:

Resolved, That in the interest of public health, the American Dental Association recommends the fluoridation of municipal water supplies when the fluoridation procedure is approved by the local dental society and utilized in accordance with the standards established by the responsible health authority.

This resolution placed the dental profession squarely on record in favor of the fluoridation of community water supplies.

The beneficial effects of fluorine upon the teeth of children can be obtained in two ways: (1) By direct topical application of sodium fluoride to the tooth surface; (2) by fluoridating water which will be drunk by young children.

During recent years the Congress has provided money to the Public Health Service for the maintenance of demonstration teams to teach and popularize the use of the first method. These teams have generally fulfilled their mission and this demonstration program will be discontinued. The topical applications to teeth will, however, continue to be made either by private dentists or, in some areas, in connection with school health programs. In other words, the Federal funds expended for this purpose have been wisely used and have stimulated interest in this health measure.

Community water supply fluoridation is the next step. This process is less expensive, in terms of per capita cost, and more effective, in terms of anticipated decrease in the incidence of cavities, than is the topical method. Both, however, will continue to be employed as health measures because community water supply fluoridation obviously does not reach those persons who draw their water from private wells or other noncommunity sources.

The funds which are sought in this appropriation will be used by States to employ technical experts who will be made available to local communities which need assistance in evaluating their own water supplies in relation to fluoridation and for providing technical services in fluoridation projects. The funds will not be employed either to purchase equipment or material for actual operation. The association believes that such cost is the responsibility of the citizens of the individual community. However, it is more efficient and more economical to provide a technical staff at the State level to serve as consulting experts on the problems which may arise than it is to set up such a staff in each individual community. Inquiries made by the association among the States indicate that they neither have nor expect to have the funds made available from State sources to provide this service. Consequently, because of the widespread incidence of dental caries the association is willing to recommend that these initial funds be provided by the Federal Government.

This service is necessary because no two communities have exactly identical water. All of it is affected to some extent by the geological conditions present in the area from which it is obtained or through which the water passes from its source to the drinking water supply. It therefore becomes necessary in any program involving community water first to analyze that water to determine exactly what it contains. When fluoride is to be added it is particularly important to know whether the water already contains this element and if so in what quantities. If the amount is excessive it may be necessary to remove some of the fluorine rather than to add more. Fluorine in the water supply is not harmful in the quantities recommended for this purpose. This amount is approximately one part fluorine to 1 million parts of water. Many communities have water supplies which contain far in excess of this amount.

There are about 16,000 community water supplies in the United States which cover about 100 million people. Studies already made indicate that 470 communities naturally have about the proper fluorine

concentration, 230 have too much fluorine—this produces a staining of the teeth—and 200 are now adding fluorine. These figures are constantly changing as more communities study their water supplies from this point of view and take steps to make the necessary adjustments. The appropriation which we seek would help to evaluate the needs of communities now considering the problem.

Bear with me, please, while I present some facts which illustrate the extent of the dental health problem in this country. The facts are not new. They have been presented to your committee and to other committees of Congress before. Ninety-five percent of the population is affected with one form of dental disorder or another at some time between the cradle and the grave. Among the afflictions which most persons may expect to experience is the dental disease known as caries, which is more commonly spoken of as cavities in the teeth. I believe I would be safe in saying that there is not one person in this room who has not at some time or another sat in a dental chair for the purpose of having a tooth filled, which is the ordinary treatment employed to stop and repair the effects of dental decay. It is probable that this experience has been repeated not once, but many times.

I can make this statement confidently without having first made a personal examination of any member of the committee because as a dentist I am acquainted with the statistics on dental disease. Studies have indicated that 50 percent of children in the 2-year-age group will have one or more decayed teeth. By age 6, when most children start grammar school, we expect to find at least three primary teeth with cavities. Fourteen percent of all children will develop carious lesions in their 6-year-old molars which are their first permanent teeth. Five years before they are eligible to vote, or at the not too advanced age of 16, most adolescents will have at least seven teeth which either are missing, have present evidences of decay, or have been filled, and at least 14 tooth surfaces will be involved. By age of 50 more than half of the population is either wearing dentures or has a number of teeth missing which should be replaced by artificial teeth.

Any disease so universally prevalent and with such continuous effect upon all age groups in the population manifestly constitutes a major health problem and involves a continuous money cost.

Last year, for example, it is estimated that more than $1 billion was expended for dental care. Some $40 million was spent by the Veterans' Administration in the form of direct payments to dentists for home-town services rendered to veterans. Additional millions were expended by the Federal Government for the dental care of veterans by Veterans' Administration-employed dentists; for the care of the numerous beneficiaries of the Public Health Service; and for the care of members of the Armed Forces. Still other millions were expended by States and by local communities for the care of institutionalized persons and indigent persons not institutionalized. It is safe to say that had every person who needed dental care last year sought it, from private practitioners or public sources, the total cost would have been several times as much as was actually expended.

Within a few days the Congress will consider a measure to place in operation universal military training. UMT is not proposed as a temporary program. It will be, so far as we can see at this time, a program which will affect all 18-year-old males from this point on.

In connection with this program the association has recommended complete dental examinations of all persons inducted into the National Security Training Corps, but has also recommended that any dental treatment be limited to that required for the immediate comfort of the trainee and to that which is required to enable him to perform his training duties. It would be ostrichlike, however, not to foresee that at least for the next few years large numbers of 18-year-olds will be transferred directly from the National Security Training Corps to active duty in a Reserve component of the Armed Forces.

When this occurs the Government will provide such individuals with a greater quantity of dental care than will be necessary under the UMT program, and will become liable to such individuals for possible service-connected dental care under veterans' laws.

Further, one has only to read the arguments advanced on the subject during the past 5 years to realize that once the 6-month UMT training program is in operation, the Armed Forces will seek to extend the required period of training to 1 year or longer. Under such circumstances it may be necessary to grant more dental care to individuals undergoing universal military training.

This military situation has a direct bearing upon this appropriation which you are considering today. In the early days of World War II about one-fifth of the persons rejected for physical defects could not meet the dental requirements of the Armed Forces. Dental disorders were so prevalent that it became imperative for the services to accept even those persons who had no teeth at all in order to avoid large-scale rejection of young men otherwise fit for military service. This in turn involved extensive and costly dental treatment and it had, to enable such draftees to perform their duties, the further effect of withdrawing nearly one-third of all licensed dentists from the service of the civilian population into the Armed Forces. Some of these military dental costs will inevitably be repeated during the present emergency and on account of the establishment in this country of universal military training.

These costs, both public and private, can be appreciably diminished in the years to come if the benefits of community water fluoridation are made available to the coming generation.

Last year, after the House had acted upon the appropriations bill, and while it was pending before the Senate, representatives of the association appeared before the Appropriations Committee of that body to urge the inclusion of an item of $1,750,000 in the fiscal 1952 budget for this purpose. At that time it appeared as if a sum of that magnitude might be needed to provide the funds then thought to be necessary. Since that time the association has queried the dental health directors of each of the States to ascertain (1) whether or not a State needed such assistance, and (2) the amount that would be required for the particular State.

Let me give you a few samples of the answers received from different States.

WEST VIRGINIA

We have discussed the subject of Federal grants-in-aid funds to assist our dental program, and are firmly convinced that such assistance is necessary if the people of this State are not to be deprived for many years of the health benefits of water fluoridation * * * There are 460 public water supplies most of

which are in small communities * * * Our estimate of total personnel and funds which will be required over and above what we now have or will be able to provide at State level is: $44,000.

NEW YORK

The type of program * * * would not be particularly needed in New York State, since there is an adequate staff in this Department at the present time to carry on the promotion of fluoridation at the local level * * * While New York State may not require any additional personnel * * * it is quite likely that such a need exists in other States.

INDIANA

The Indiana State Board of Health has sufficient personnel to carry on its water fluoridation program * * * However, it could use Federal funds that would be earmarked for general dental services.

OKLAHOMA

* * * I will say that fluoridation programs in Oklahoma could probably be expedited by the addition of more stenographic and laboratory personnel. I question whether or not more dental or engineering personnel are needed right now.

ILLINOIS

As 90 percent of the population in Illinois can eventually be partially protected against dental caries through fluoridation, the following budget would not be excessive if compared to the dental bill where all the carious teeth had to be corrected: State (outside of Chicago), $118,000. City of Chicago, $50,000. Total, $168,000.

MISSOURI

We are definitely in support of a Federal grant-in-aid to States for use in fluoridation programs and studies. (A budget of $10,750 is mentioned as Missouri's need.)

MASSACHUSETTS

It is our estimate that the funds necessary for * * * a program of fluoridation at the State level would be $16,000. This would have to be in addition to our already budgeted activities and hence would have to be provided entirely by Federal funds.

CALIFORNIA

The proposal (a grant-in-aid for fluoridation) could be of great help to us in California provided we could get qualified personnel. (Indicated funds needed: $10,000 plus travel.)

COLORADO

A grant-in-aid program to assist in the establishment of fluoridation programs in Colorado would not only be feasible, but very desirable. The estimated cost * * * would be approximately $19,500. None of this sum could be financed from current or anticipated revenues without reducing some other phase of the dental program.

GEORGIA

We have agreed in general on the desirability of having * * * Congress provide funds on a grant-in-aid basis to State health departments for the purpose of promoting fluoridation. The money needed: a minimum of $17,000.

IDAHO

The earmarked funds for the promotion of fluoridation would certainly be a great help to States all over the country. Money needed for Idaho: $18,720.

MICHIGAN

It is gratifying to learn that you intend to support an appropriation, to be used, on a grant-in-aid basis, for the purpose of providing technical personnel to advise concerning community water-fluoridation programs. Although we in Michigan have both dentists and engineers who are qualified to render this service we could use more such personnel and the only way I see of obtaining the money to pay for their services is through some such program.

The association queried all 48 States and the District of Columbia with regard to whether or not they would need Federal assistance to conduct studies of this nature and if so what amounts would be required for the next fiscal year; 37 replies were received.

As can be seen from some of the excerpts not all States felt that they either needed money or that the program would be feasible in their States. However, 23 States not only said that they would need money, but indicated the amounts which would be required from the Federal Government.

The total of these specified amounts was $506,000.

It is reasonable that at least half again as much would be required to provide funds for all the States which might seek such aid. The American Dental Association therefore recommends that the amount presently set forth in the budget for this purpose be increased to $750,000 and that this sum be recommended to the House for approval.

The American Dental Association further requests that the sum of $1,900,000 not presently included in the budget, representing funds authorized by the Eightieth Congress for the construction of a building for the National Institute of Dental Research, be inserted in the budget by your subcommittee and recommended to the Congress.

The various agencies of the National Institute of Dental Research are presently scattered throughout the country. It appears to the association that it is impractical properly to coordinate these research programs under such circumstances and it believes that it is imperative to gather the various research units into one place as soon as possible.

The association would like to point out that the Eighty-first Congress appropriated the sum of $100,000 for the purpose of drawing plans and specifications for a building for the purpose to be located on the Bethesda grounds of the Public Health Service. These funds have been expended and the plans have been completed for nearly 2 years. Unless the plans are employed soon for the construction of the building not only will the $100,000 already spent be wasted, but the rising costs of building construction may require additional funds when funds in accordance with this authorization are finally appropriated.

The association is well aware that it has come here this morning and asked your committee to appropriate $2,400,000 over and above appropriations already contained in the budget. It is also well aware that you are considering the highest budget in peacetime history, but the association, as an organization which must exist on a budget itself, knows how budgets are made and how they can be adjusted. As taxpayers, the members of the association would respectfully urge you to present as limited a budget as is consistent with the needs of the country.

As members of the health profession and as experts in the field of oral health, they would urge upon you that the program which their representatives have presented to you this morning is extremely important to every individual in the Nation and they believe that these requests should be given high priority in the consideration of items to be retained in, or added to, the budget.

In conclusion may I ask that you have the 3-page statement on the subject of fluoridation of water supplies issued by the Inter-Association Committee on Health, which consists of the following six organizations in the field of health, namely, the American Dental Association, the American Hospital Association, the American Medical Association, the American Nurses' Association, the American Public Health Association, and the American Public Welfare Association inserted in the record immediately following the testimony.

Mr. FOGARTY. Without objection it will be so done.

Dr. GALE. On behalf of the association, may I thank you for this opportunity to appear.

(The statement referred to above is as follows:)

SUPPLEMENT TO STATEMENT OF AMERICAN DENTAL ASSOCIATION

Effective February 1, 1952, the following statement was officially adopted by the six national associations constituting the Inter-Association Committee on Health, namely, the American Dental Association, the American Hospital Association, the American Medical Association, the American Nurses' Association, the American Public Health Association, the American Public Welfare Association.

FLUORIDATION OF PUBLIC WATER SUPPLIES

Since scientific reports published 35 years ago on the prevalence of endemic dental fluorosis in the United States, evidence has accumulated demonstrating the influence of small amounts of fluoride on dental health. Too much fluoride in drinking water results in a condition known as dental fluorosis, or mottled enamel: too little is associated with a high dental caries experience rate. Between these two extremes, however, there is an optimum concentration of fluoride of about one part per million which effectively prevents a substantial amount of dental caries without causing dental fluorosis.

The problem of uncontrolled dental caries.—In the average community not benefiting from fluorides in its water supply, up to 50 percent of the 2-year-old children have one or more carious teeth, and the caries attack continues at a high rate to the extent that 95 percent of the population is affected. Dental caries results also in considerable cost for corrective dental services throughout the individual's lifetime.

Unimpeded by preventive measures, dental caries creates a health problem of considerable magnitude because of its high rate of occurrence and its numerous sequelae that result from neglect. Dental defects thus created are accumulating at a rate of four to five times faster than can be corrected by presently available dental personnel. Sound public health practice, therefore, requires a reduction in the size of the problem by the use of effective preventive measures; especially those measures which are applicable on a widespread basis and benefit all persons in the community.

Epidemiological studies.—Epidemiological studies in many areas throughout the United States and abroad have shown that, within certain limits, a consistent inverse relationship exists between the fluoride content of drinking water and the amount of dental caries experience in children, particularly those using fluoride-bearing water continuously since birth. It has been found also that a concentration greater than about 1 part per million, provides little, if any, additional benefit. As the concentration increases beyond 2 parts per million, an increasing number of persons has fluorosed enamel that is easily detectable. Numerous investigations have shown that people reared in areas where drinking water contains approximately 1 part per million of fluorine have experienced only about one-third as much dental caries as those reared

in areas where the water supplies are fluorine-free. Evidence indicates also that benefits are retained throughout life.

Studies on controlled fluoridation.—Studies begun in 1945 indicate that a similar degree of protection against dental caries is found in areas where the fluoride content has been adjusted to an optimum level as is found in areas where the same concentrations occur naturally. Statistical data show a significant reduction of dental caries in children and there is also evidence to suggest some protection to the teeth of persons who were young adults when fluoridation was undertaken. Continued observations will establish the ultimate degree of effectiveness in older age groups who used fluoridated water during childhood.

Studies on safety of fluoridation.—There is extensive literature on the pharmacology and toxicology of fluorides. The reports include laboratory investigations as well as studies conducted among people who have lived continuously in areas where the drinking water contains high concentrations of fluorides.

The most sensitive indication of an adverse physiological effect of fluoride ingestion is an enamel defect known as dental fluorosis. Accumulated experience provides no evidence that the prolonged ingestion of drinking water with a mean concentration of fluorides below the level causing dental fluorosis has any harmful effect.

A program involving the adjustment of the concentration of fluoride content in the municipal water supply is especially practical and safe because it is constantly subject to control by competent health authorities and does not require action on the part of individual citizens.

Cost and engineering aspects.—The cost of fluoridation is small considering its benefits. The cost of equipment has been found to range from several hundred dollars for a small town to about $15,000 for a city of 2,500,000 persons. Annual operating costs vary from 4 to 14 cents per person. These amounts are insignificant when compared with the costs of dental corrective services throughout a person's lifetime.

According to the American Water Works Association, the addition of fluorides to a municipal water supply is feasible from an engineering standpoint. The mechanics of fluoridation are no more involved than those of water purification; moreover, the machinery and equipment commonly used in water plants is easily adapted. Through experience in towns and cities now fluoridating their drinking water, standardized procedures have been developed which include appropriate supervision by official health authorities.

Need for wider adoption of fluoridation.—Although studies are still being conducted to determine the greatest amount of protection that may be realized from fluoridation, there is ample evidence to justify its use in any community where the water supply is deficient in fluorides and where the standards established by the State and local health authorities can be met.

There is evidence that the beneficial effects of fluoride-bearing water are obtained only after several years of continuous use. Every year that fluoridation is postponed, many thousands of children are deprived of the dental benefits which they might otherwise have obtained.

In order that this effective, inexpensive, and safe public health measure may be adopted by additional communities as rapidly as possible, fluoridation must receive the continuing and active support of all professional, civic, and official organizations concerned with the health and welfare of the public.

National health organizations with policies favorable to fluoridation.—American Dental Association, American Medical Association, American Public Health Association, American Association of Public Health Dentists, United States Public Health Service, National Research Council, State and Territorial Health Officers Association, and State and Territorial Dental Health Directors.

Resolved, That the Inter-Association Committee on Health urges the fluoridation of the fluoride-deficient public water supplies of this country as rapidly as plans can be approved by the local medical, dental, and health department officials and the State departments of health.

Mr. FOGARTY. Thank you, Doctor.

As you know, this subject of applying fluoride to children's teeth was brought to our attention in 1948 when Dr. Knudson testified before the committee. The Public Health Service had been working on this project for about 10 years previous to 1948. It was his testimony that was more or less a basis for this committee agreeing at that time to make a special appropriation of $1,500,000 to establish

these demonstration teams about which you spoke earlier in your testimony. The purpose of that appropriation was to bring to the attention of not only the public, but of the dentists who were not using it, or did not have it available in their offices. As I remember, it had just been endorsed by the American Dental Association, just previous to the hearings in 1948. We did appropriate $1,500,000 to provide the money for these demonstration teams to go into various States and work, especially with school children, in community enterprises and school projects.

However, it was the intention of the committee at that time that through the appropriation of this money, we would stimulate interest throughout the country and to demonstrate to the local people the value of this treatment. It was not the intention, in making the original appropriation, to appropriate money year after year for that purpose and we have gradually been cutting down that appropriation and as of today there are but a few demonstration teams, Then along came this program for fluorinating community water supplies. There is no question in my mind as to the benefits. I think that has been proven by your association, by the people who work with it, and by the American Medical Association. They have approved the procedure now. The question in my mind is how far we should go in appropriating Federal funds for this purpose.

In listening to your statement, the thought came to me, would it not be possible for the people in the Dental Institute in Washington to bring one man from every public health department into Washington and train them over a period of 2 weeks and then wouldn't one man be sufficient in every State to make these determinations as to how much sodium fluoride exists in the drinking water at the present time and how much is needed and the type of machinery and the percentage of the solution that should go into that supply? Could not one man advise the local communities in every State?

Dr. GALE. There are 16,000 community water supplies in the United States. If you had one man attempting to cover 16,000 community water supplies——

Mr. FOGARTY. No; I mean one adviser in every State. One technical man. I should think it would then be up to the local communities to go to their State public health office and ask for this advice.

Mr. GARVEY. The American Dental Association is not particularly in favor of coming to Congress and asking for money. We feel there is a responsibility at the local level for these things and we feel that the expense of the actual fluoridation program should be borne at the local level. The only reason we come to Congress is because we feel the States either have not or are unwilling to appropriate sufficient money to set up in their own public health departments at the State level, either additional personnel or teams to do this work.

Now one man is not practical in most States because it requires the services of a water engineer, of laboratory technicians specializing in water analysis and in some instances a dental man with regard to making preliminary examinations as to the tooth situation there.

It is the general thought that if these funds were made available as grants-in-aid and earmarked so they could not be diverted at the State level to other purposes, as sometimes is the case, we feel that it could be handled in a matter of 2 or 3 years. We would not want to

let this continue year after year because we feel that most States are perfectly competent to take care of themselves. However, they need this assistance so that if the city of Danville, for example, in Illinois, wanted something it could go to Springfield and get it. If the city of Fort Wayne in Indiana wanted it, they could go to the State capital.

At the present time the State health departments do not have the personnel to process these requests which they are getting. There is an increasing interest in it. One man could not do the job on a preliminary-training basis because it requires the skills of several people. Part of this money, of course, would be used for funds within the State to go from the State capital to the community which needed these services.

Mr. FOGARTY. You have quite a number of communities now that have already fluoridated their water?

Mr. GARVEY. There are about 200 or somewhat in excess of 200 that have actually done it already. There is probably an equal number which has taken some municipal action to provide the funds to start them going. There are a total of 16,000 communities in the United States that could possibly use fluoridation.

Mr. FOGARTY. I know in my own particular State, Rhode Island, the largest city, Providence, has already gone ahead and appropriated money to get the machinery and I think practically every other community that has a community water-supply system has gone ahead with plans and either have the money appropriated or have otherwise taken care of it and I expect within a year most of the communities will have their drinking water fluorinated.

I should know but I do not know offhand where they got their assistance. As far as I know it was done through the State public health office.

Dr. GALE. There is one condition in Rhode Island that may not apply in other States. One thing that is important is the laboratory testing and so forth. In a small State it is a much simpler problem, perhaps, than in a large State where much more distance is involved in the constant checking.

Mr. FOGARTY. In regard to your research building out here, this committee did authorize the construction of this building in the fiscal year 1950. We appropriated $100,000 for plans and specifications. In this particular year, I presume the reason it has not been included in the Bureau of the Budget figures is that there has been a special screening of all public building because of the defense measures under way.

We have many things we would like to go ahead and build, particularly in the Public Health Service, but it is just impossible, with the shortage in building materials, to go ahead with construction this year. That is one of the principal reasons why there is no money being allocated by the Bureau of the Budget for construction of any of these much-needed buildings. While this building is already authorized, and $100,000 has been expended for planning, it has not been carried out.

Dr. GALE. I suppose every group feels there should be an exception for their particular project. We are discussing the problem of departmental health in the Nation and we believe the first step in controlling

this program is research. The fluorination program we feel is a very definite step toward the reaching of the multitude.

There is one distinct difference that I think can be drawn between the topical application in the fluorination of water supplies. The topical application of fluorides to the mouth is an expensive proposition in the time consumed and the necessary personnel involved. Whereas the addition of fluorine to the water supply is not expensive and it reaches everyone. It reaches all economic groups.

Mr. FOGARTY. I personally believe it is a wonderful thing. So far as I have been told, it is the first time that anything has ever been developed that would prevent caries, in children's teeth especially. The determination this committee has to make is whether or not the States can do more than they are doing at the present time. We have appropriated several million Federal dollars in the last 4 years to get it before the public.

Are there many dentists who use this topical application?

Dr. GALE. Yes, there are many dentists.

Mr. FOGARTY. It is not widespread though, is it?

Dr. GALE. No; because strangely the competency does not seem to carry through in the topical application. There are many who don't feel that the topical application is as successful. That is not strange because any new medical suggestion is very apt to be subject to controversy for a while.

Mr. DENTON. The thought that has been going through my mind is that we make money available to the States for water works engineers and we have dental officers. I know that that personnel has been increased considerably in the last few years. I wonder if some of that force they have there now could not be utilized.

Dr. GALE. I might say that there was a considerable amount allowed by the Bureau of the Budget and letters were sent to all the dental directors of the States in an effort to determine whether or not this service was desired, whether it was necessary and how it would be used.

Some of the States indicated as you have suggested that they have sufficient personnel to handle the situation themselves. However, they all added that they would be glad to have money to prove it.

Mr. DENTON. They have money for that purpose now.

Mr. GARVEY. Your State of Indiana indicated they would probably not need money for this particular purpose. However, in the general grants-in-aid money, there seems to be an administrative principle against earmarking.

The over-all State health director does not like to get earmarked funds because if he gets earmarked funds he can only use it for that purpose. In other words, if Congress decides where the money shall be spent at the State level, his hands are tied. On the other hand if you give them a free hand and let them have money for the program, here, and it is sent to the States under whatever basis they might qualify for it, then the health director can parcel it out to the activities under his jurisdiction either according to where he feels the need lies in the States or his own predilection for the programs.

Mr. DENTON. I am talking about this money for waterworks engineers.

Mr. GARVEY. They have a job over and above the flourination program. When we carried the States, we asked, on a combined basis,

what they would need, and their replies indicate what they would need for additional waterworks help, for additional laboratory personnel, for additional dental personnel if that is what they needed in order to help with the education of the communities and for travel expenses for all these groups.

The moneys they have indicated they need is over and above what they are now doing both in this field and in general fields, and those who have said they needed money indicated that they had a full load on their hands with their present personnel and available funds.

Mr. DENTON. I appreciate the difficulty of teaching these people who run the waterworks to use this fluorination. In my home town we have one that could do it very easily. I was talking to him the other day about this. That department has increased in the last 2 or 3 years at least two- or three-fold, and there are certainly men in that State department who know this work. If they could do this work, along with the other, where they are doing waterworks engineering, it seems we could get the thing done with what we have.

Mr. GARVEY. We would certainly like to see it done with what you have here. There is not a dentist in this country who does not pay a pretty heavy income-tax bill, and he is conscious of it because he writes a check four times a year for it.

We have tried to give you the evidence which the men most familiar with the problems in the States have given to us, as to their real need.

We felt it was important for you to know the problem as it exists and not as a selling program.

Dr. FOGARTY. What did Rhode Island do?

Mr. GARVEY. Dr. Colgan, your man up there did not reply. Perhaps they feel they are doing well enough up there.

Mr. FOGARTY. Mr. Busbey, have you any questions?

Mr. BUSBEY. I compliment the American Dental Association on their extreme interest in this very worth-while and vital program. I am glad to hear Mr. Garvey say that they would like to see this program carried on at the local level and that Illinois is a State that is capable and in a financial position to take care of their services along this line.

I might say to Mr. Garvey, if he will read the hearings, I repeatedly mentioned to people coming before this committee asking for Federal funds that I cannot get out of my mind the fact that we only get 7 cents out of every dollar paid into the Federal Government returned to the State of Illinois.

Naturally that makes me a great champion of States' rights, but the program is worth while and I am not entirely sold on just where it should be handled at the present time.

However, I think it is a wonderful thing that an association like the American Dental Association is taking their valuable time to promote the health of the people of the country, particularly the children, and trying to save their teeth.

That is all I have, Mr. Chairman.

Mr. GARVEY. May I add one thing?

Mr. FOGARTY. Yes, sir.

Mr. GARVEY. While I said I felt the State of Illinois was capable of doing that, I would certainly think it should be done. I would call to your attention that the State health director indicated a need of

$118,000 to carry on the program outside of Cook County and an additional $50,000 for the city of Chicago.

To keep the record straight, it is only my opinion and his.

Mr. BUSBEY. How many communities in the State of Illinois have this fluoridation program at the present time?

Mr. GARVEY. Evanston I am sure of. I know it is going into several. Could I send you a memorandum on that?

Mr. BUSBEY. What has the State health department done to promote this program in Illinois?

Mr. GARVEY. I think they have made available such information as they have at their command. I know Dr. Creeksburg, the dental director, is extremely familiar with it and enthusiastic about it and within the limited funds available to him from State sources he has assisted wherever he could.

Of course, the health department in Chicago is now studying the matter independently of them. The Evanston project was run as a pilot project and it is being watched closely, and I think that the conclusions in that project will probably be made public in the not too distant future, and what happens in Illinois will be based a good deal on that. There is great interest throughout the State in this fluoridation program.

Mr. BUSBEY. Has there been any request by the City Council of Chicago or the State Legislature of Illinois for funds for this program? I mean by that, funds that are earmarked for the flouridation of water program?

Mr. GARVEY. No, sir. As far as I know, there has not. Let me make clear the reason for this.

The legislature in the State of Illinois, of course, met last year and will not be in session this year.

It was just immediately prior to that time that the American Dental Association approved this water fluoridation as a matter of public policy. Prior to that it had been in a study status.

The Illinois Dental Association, which would handle such matters at the State level as distinguished from the American Association, which operates at the national level, had not had its meeting until after the legislature adjourned, so they would be unable to adopt a policy.

They are interested in it and are promoting it. The Chicago Dental Society has been active very much in the city of Chicago and I believe the city council in the city of Chicago is holding a hearing today or tomorrow, 1 of those 2 days, with regard to the subject of fluoridation in Chicago and it has been under extensive study by at least the technical staffs of the council as to whether it should be done.

Mr. BUSBEY. I am very glad to get that information.

That is all, Mr. Chairman.

Mr. FOGARTY. Do you have any further statement to make, Dr. Gale?

Dr. GALE. I would like to again thank the committee for the opportunity to appear before you.

Mr. FOGARTY. Thank you for coming. We have appreciated your statement.

WEDNESDAY, FEBRUARY 20, 1952.

NATIONAL CANCER INSTITUTE

WITNESSES

JAMES S. ADAMS, GENERAL PARTNER, LAZARD, FRERES, NEW YORK CITY, BANKERS, AND CHAIRMAN, EXECUTIVE COMMITTEE OF THE RESEARCH COMMITTEE, AMERICAN CANCER SOCIETY
LEON JACOBSEN, M. D., PROFESSOR OF MEDICINE, DIVISION OF BIOLOGICAL SCIENCES, UNIVERSITY OF CHICAGO, CHICAGO, ILL.
SIDNEY FARBER, M. D., PROFESSOR OF PATHOLOGY, HARVARD UNIVERSITY SCHOOL OF MEDICINE, BOSTON, MASS.
CORNELIUS P. RHOADS, M. D., DIRECTOR OF MEMORIAL CANCER CENTER, NEW YORK CITY
CHARLES J. CAMERON, M. D., MEDICAL AND SCIENTIFIC DIRECTOR, AMERICAN CANCER SOCIETY, NEW YORK CITY

Mr. FOGARTY. The committee will come to order. The committee is pleased to have before it this morning Mr. James Adams, of New York, who is chairman of the executive committee of the Research Committee of the American Cancer Society.

I presume, Mr. Adams, that this morning, as you did a year ago, you will make a statement yourself and then present the other witnesses to this committee.

Mr. ADAMS. Thank you very much. We want to thank you for the opportunity of appearing here today on behalf of the American Cancer Institute and the other institutions which are being supported in their cancer research work and in other medical research work by the Federal Government's program in which this committee has had such an important part.

Before beginning I would like to say that the American Cancer Society is sad to learn of the death of Mr. Keefe, of Wisconsin, formerly a member of this committee.

He performed valiant service in serving medical research in the interest of the people of the United States.

I worked with him to some extent as did the chairman and others in 1948 in the introduction of the or the formation of the National Heart Institute. Unfortunately, later, he died of a heart attack himself. He was a wonderful man and his contribution will not be forgotten.

I am James S. Adams, a general partner in the banking firm of Lazard, Freres in New York. I am chairman of the executive committee of the Research Committee of the American Cancer Society, as well as a member of the National Advisory Cancer Council. That council is now in session, for 3 days.

I have frequently appeared before this committee urging adequate support for the National Cancer Institute in its fight against this disease and I appreciate the opportunity of again appearing before you today to state what I believe are the budgetary needs of the institute for the fiscal year ending in 1953. I speak from the viewpoint

of a taxpayer as well as a participant in the public effort to find a cure and solution for the dread disease of cancer.

I would like to say, gentlemen, that as a businessman and as a banker, I am aware perhaps more fully than some others that the national budget must be kept to an absolute minimum to aid in maintaining the solvency of the country. I believe that in some areas the present national budget should be cut. But in the field of cancer research and control in which the National Cancer Institute operates, I believe profoundly and without reservation that in spite of the need for reduced expenditures by the Federal Government, the Public Health Service budget that you have before you for consideration now, which was presented by the executive department, is completely inadequate. I believe it is inadequate not only for the fiscal year 1953, but that it must be increased if the gains that have already been made in the fight against cancer are to be secured and if continuing progress is to be made in attacking the disease.

I do not say this lightly. I am fully aware that witnesses come before you and before other segments of the Appropriations Committee time after time to argue the merits of their own program without regard to the relationship of that program to the whole budget. I recognize that this is a professional budgetary problem, that protagonists of one program express pious views about the total national budget and strike forceful blows for the part of the budget in which they are interested. But I want you to believe me when I tell you that in my business capacity, Federal expenditures and Federal taxes are a most important consideration in a great many problems which I am charged with the responsibility of handling. Therefore, I am neither unmindful of the requirements of the national budget, nor am I ignoring the fact that the ultimate budget is the sum total of its component parts. What I contend is that in the area of which I am speaking, in the cancer field, justice is not being done to the needs of the people who are stricken by the disease or who are affected by the disease by having it strike someone in their family. I am fully aware of the basis on which the executive budget is computed. I sympathize with the effort toward reduction in general, but I say to you, gentlemen of the Appropriations Committee who are hearing this testimony for presentation to your colleagues on the floor, that despite the necessity for the closest scrutiny of every budget request you have and perhaps for the reduction of many items in those requests, an equally close scrutiny of the needs of cancer research and control will show you as it showed me that if progress is to continue at the rate that it should continue in this field, the proposed support of the National Cancer Institute must be increased.

Gentlemen, I would like to present to you our view of the budget for the Institute as we believe after study it should be.

(Budget comparison follows:)

Comparison of 1952 appropriation, 1953 executive budget, and 1953 American Cancer Society recommended budget

	1952 citizens budget	1952 appropriation	1953 executive budget	1953 American Cancer Society recommended budget
GRANTS				
1. Grants to medical and dental schools and other institutions and to individuals for research and training:				
(a) Research projects	$4,800,000	$3,100,000	$3,100,000	$4,900,000
(b) Research fellowships	750,000	500,000	500,000	750,000
(c) Institutional grants	1,000,000			1,000,000
(d) Biological effects of high energy radiation	500,000			500,000
(e) Investigation of cancer-cure claims	200,000			200,000
(f) Construction of research facilities:				
Contract authority	9,000,000			5,000,000
Liquidation cash	4,825,000			
(g) Teaching of medical subjects	2,100,000	2,040,000	2,040,000	2,225,000
(h) Training stipends	500,000	375,000	375,000	500,000
2. Grants to States for detection, diagnosis, and other control services	3,500,000	3,100,000	3,100,000	3,100,000
3. Grants for special control projects	1,000,000	900,000	750,000	1,000,000
Total grants	28,175,000	10,015,000	9,865,000	19,175,000
DIRECT OPERATIONS				
1. Research	3,909,000			
Basic		4,137,000	4,012,000	4,261,000
Clinical center			688,000	1,437,000
Total research	3,909,000	4,137,000	4,700,000	5,698,000
2. Other direct operations:				
(a) Technical assistance to States	465,000	415,000	378,000	490,000
(b) Review and approval of grants	83,000	85,000	78,000	87,000
(c) Administration	350,000	354,000	350,000	375,000
Total direct operations	4,807,000	4,991,000	5,506,000	6,650,000
Total obligations	32,982,000	15,006,000	15,371,000	25,825,000
Adjustments (transfers out)		69,000		
Contract authority for construction of research facilities	−9,000,000			−5,000,000
Liquidation cash for construction of research facilities	−4,825,000	4,625,000		
Total obligational cash	19,157,000	19,700,000	15,371,000	20,825,000

Mr. ADAMS. This is the unanimous resolution of the board of directors of the National Cancer Society, after careful study of these needs and of the total over-all problems with which you are faced.

I think that one of the women on the board put it best when she said:

You know, we all have budgetary problems. First things must come first. When we build our family budget at home, the first thing that we put down is the amount we need to spend for food and then we put down what we are going to spend for the rest of it.

She said:

I think the health of the people is one of the first things to go into the budget and then after that is taken care of we go on to clothes and maybe the other things that are needed, if we have the money.

You will note that if you compare the budget voted by the Congress for the fiscal year 1952 and the executive budget for the fiscal year 1953, it appears after eliminating the figure of $4,625,000 of liquidation cash that the budget for the fiscal year 1953 exceeds by a small amount—some $360,000—the budget of the fiscal year 1952. This conclusion is not warranted, however, because included in the fiscal

year 1953 budget is an allowance of $688,000 for the operation of the clinical center at Bethesda—a new activity to start in the latter part of the year.

This means that the net difference between the appropriation for the National Cancer Institute for fiscal year 1952 and the executive budget for the year 1953 is a reduction of some $323,000. We believe that any reduction in the present level of support of the National Cancer Institute would be a grave and perhaps even a disastrous step to take. On the other hand, we are convinced that the program of the Institute for the fiscal year 1953 should be supported in increased amounts—at least those shown in the last column of this exhibit. We believe that these are minimum amounts requisite to secure the gains already made in the cancer field, to provide for additional badly needed laboratory facilities, to insure a continuing supply of trained scientists, and to enter into four additional fields of cancer research work. These fields are institutional research grants which will be treated more fully later, research into the biological effects of high energy radiation—a subject of particular importance in this atomic age, an investigation of cancer cure claims, and the work at the Bethesda Clinical Center where laboratory developments can be applied to human patients under controlled conditions.

We are also recommending a completion of the construction program in the amount of $5,000,000.

In the category of research projects, it will be noted we recommend only an increase from $3,100,000 to $4,900,000, approximately the same amount as we recommended a year ago. Twenty-nine of the 55 new facilities partially financed by Government funds have now come into operation.

I would like to interject at that point to say that for every dollar of Government funds which this Congress has appropriated, $6 have gone into building as a result of the fund finding of private and local sources. So that each of your dollars have meant an expenditure for construction of $7.

Others are nearly ready for occupancy. With these expanding opportunities, it is inevitable that there will be more new and promising projects for support. New requests have come in at the rate of approximately $1,000,000 a year. There has been no increase in the appropriations for research projects in either 1951 or 1952. Accordingly, in order to make effective use of new facilities and newly trained young scientists, additional support for projects must be forthcoming.

Also, we have the matter of greatly increasing costs of running hospitals and medical research projects due to this enormous rise in the cost of living which has affected everything in the last few years.

The National Cancer Council of which I have the honor of being a member, has had to turn down several projects of research work which should be done and carried on, because the funds are not available.

We strongly urge that the level of research fellowship support which for the last 2 years has been pegged at about $500,000, be increased to $750,000. Due to the increased cost of living, it has been necessary to increase the amount of each individual fellowship by approximately 10 percent so that an appropriation for next year of exactly the same amount of money as the Institute had last year, will actually

result in a reduction in the number of scientists who can receive training. It is estimated that the $500,000 proposed in the Executive budget will support only about 175 persons in training. The $750,000 would provide for approximately 250 fellows, which is still far below the number of applications which would merit support were funds available. The records show that approximately 89 percent of the scientists who have been trained under National Cancer Institute research fellowships continue in this field after their fellowships have been completed. In other words, the program has been successful in recruiting research men.

The $4,261,000 recommended for the direct research operations at Bethesda allows for no increase in the scope of that operation. The difference between the $4,137,000 appropriated for the fiscal year 1952 and the $4,261,000 recommended for the fiscal year 1953 represents only mandatory salary increases. The Executive budget provision of $4,012,000 would require an actual contraction in the work.

We believe that the program which this budget will provide is carefully conceived and is one which the American public will support. The medical consideration will be dwelt on by the professional witnesses who will speak to you later this morning. But I believe it would be well to orient all our thinking against a statement of the cancer problem in terms which every citizen can understand. The striking facts are: Two hundred fifteen thousand cancer deaths will occur this year. Seventy thousand of these could be prevented by early diagnosis and prompt and effective teratment, 22,000,000 people alive today will die of cancer unless new cures or preventative measures are found. At the present time one out of every seven people who dies, dies of cancer. Cancer is the No. 2 cause of death in this country. Heart is No. 1. One out of every two homes will be struck by cancer. During the course of World War II, approximately two and one-half times as many deaths were caused by cancer as were caused by hostilities in the armed services.

This outlook is something that a country such as ours will not tolerate as a humane consideration. But looking at it sheerly from the point of productivity, we have an equally striking picture of economic loss.

In World War II 5,000,000 men between the ages of 18 and 37 were rejected for military service on a medical basis, and of these, 32,000 were unavailable to the Military Establishment because they had suffered from cancer and other neoplasms.

In other words, we were denied the manpower for two full infantry divisions because this disease had struck men of military age.

Each year, 113,000 man-years of production are lost. This is simply a graphic way of saying that people who are otherwise employable but who are disabled by cancer would contribute to the economy of the country that much working time if cancer did not prevent them from doing so. These lost man-years of labor are more impressive perhaps when they are expressed in earning capacity—$341,000,000 in the value of production lost in 1950 because of cancer.

I am sure you feel as I do that apart from the deaths and suffering which we all have felt in some measure or other in our personal lives, and which we abhor whether or not they have cut across our own in-

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dividual experiences, the economic loss alone is sufficiently compelling to demand a greater expenditure to solve the problems of the disease than is currently recommended. If we consider this aspect of the problem alone, the effect of the current executive budget is that we are spending about $15,000,000 against a redeemable figure of $300,000,000. Just that consideration by itself points up the inadequacy of our present budgetary approach.

There are two items in the budget proposed by the American Cancer Society for the fiscal year 1953 which are not included at all in the executive budget which I would like to present in a little more detail. These are institutional research grants and the construction of new research facilities.

First the reasons for recommending that $5,000,000 be included in the budget for the fiscal year 1953 for the construction of research facilities:

The Congress several years ago and particularly this committee realized that the necessary broadening of the cancer-research program and the effective utilization of fellows who have been and are being trained would be substantially limited unless additional space and facilities were provided in which effective work could be carried out. So as long ago as 1947 and 1948 when the program was originally conceived, it appeared that the sum of $25,000,000, and now I am talking about 25,000,000 1948 dollars, was the least amount which would provide adequate additional physical facilities at medical schools, hospitals, and cancer-research institutions for the cancer-research work which we expected them to be prepared to undertake. Furthermore, this $25,000,000 was looked upon as seed money which would attract substantially larger amounts of local support, thus making the total amount available for construction substantially in excess of the amount which the National Cancer Institute itself was to provide.

In the fiscal years 1948, 1949, and 1950, the Congress appropriated $16,303,000 of the $25,000,000 total figure, but made no appropriations for construction in either the fiscal year 1951 or 1952, and, as stated previously, no provision has been made in the executive budget for the fiscal year 1953 for this purpose.

The $16,300,000 has been allocated to 55 different construction projects in 47 institutions in 27 States. Twenty-nine of these projects are completed, and others will be completed during the fiscal year 1953. It is estimated that this $16,300,000 of Federal funds has made it possible for the institutions themselves to raise an additional $100,000,000 for the construction program. Or, in other words, each Government dollar has been multiplied by six, and construction costing nearly $120,000,000 has resulted from Federal appropriations of only $16,300,000.

In spite of the fact that no new funds have been available for the past 2 years, 29 institutions whose applications were not granted out of the $16,300,000 already appropriated have now on file firm requests for more than $8,000,000. Moreover, many of the grants originally made were substantially scaled down and requests for supplements are now on file from 24 institutions for a total of $8,500,000. Thus, there are now pending 53 firm requests for $16,500,000. In addition, 30 other institutions have written to the National Cancer Institute expressing their intent to apply if and when construction

funds are again available. We strongly recommend that the Congress now reinstate the construction program and that it authorize $5,000,000 of contract authority for the fiscal year 1953. This would leave unauthorized approximately an additional $3,700,000 from the original program of $25,000,000.

Now a word as to the institutional research grants. At the present time, the National Cancer Institute supports cancer research in institutions around the country solely on a project basis; that is, the scientist who proposes to carry out some research work must submit a description of a specific project, which is well enough advanced so that it can be described with considerable particularity and so that its merit can be made evident to the scientists who compose the study sections and so that it can stand on its own feet in competition with other projects in the same general field of inquiry.

This method of conducting and financing research is the traditional one and it has been productive of many discoveries in the past and is still a necessary and important part of any well-rounded research program. We have already recommended an increase in this category.

However, during the past few years new knowledge has been coming from our research laboratories in increasing volume and large medical research centers have been developed usually in conjunction with a medical school or a special-purpose hospital. Thus, as the program you have supported from Federal appropriations has developed, research facilities have become more generally available where not only basic research is being carried out, but where the discoveries from these studies in the laboratory can be promptly tried out on patients in the associated hospitals.

The necessity for stimulating the growth and development of such research centers led the American Cancer Society some years ago to the inevitable conclusion that a new and different form of research support was necessary. Accordingly, it adopted a procedure which has come to be generally known as the institutional research grant. This means simply that to a small number of selected institutions, more or less fluid grants are made for the support of cancer research work in that institution. In effect, under the project grant the financial support is justified because of the excellence of the project or of the individual investigator; or, to put it another way, the project grant backs an individual.

Under the theory of the institutional grant, the aggregate of all scientists within the institution and the integrity of the institution itself are backed. Funds from the institutional grant are allocated to specific endeavors within the institution by appropriate committees set up within the institution itself and without the necessity of describing in advance to the granting organization just how they will be used. The institutional grants thus have the distinct advantages of making resources immediately available to promptly follow up and develop new and promising leads which may turn up in an institution at any time. This support might be likened to venture capital where the possibilities of large returns are always present. The experience of the American Cancer Society with the institutional grants has been most satisfactory, and we strongly urge that a million dollars be allocated to the National Cancer Institute to undertake a program along somewhat similar lines.

To summarize, we propose a budget of $25,825,000 which includes $5,000,000 of contract authority for the construction of research facilities. The proposed executive budget is in the neighborhood of $15,000,000. In effect, then, this is the meager evaluation made by the Federal Government through its executive branch of the vital problem of cancer as it affects 150,000,000 people. General Motors and the Standard Oil Co. of New Jersey each spent in 1950 over $20,000,000 on scientific research and development projects. Another situation with ominous meaning to the taxpayer is the veterans' cancer problem. On the basis that one out of five Americans now living will have cancer unless new preventive measures are found, over 3,800,000 of the 19,000,000 veterans of all wars will be hospitalized or entitled to hospitalization for cancer. Each case will cost the taxpayer $3,000, or a total of more than $11,400,000,000. We are only asking for $25,000,000 for the fight on cancer. When you compare these startling figures, you will see why we come to you with the conviction that the Federal funds for cancer research and control budget for the fiscal year 1953 should not be held down to $15,000,000 but should at least total $25,000,000. I hope you will see your way clear to present to your colleagues the necessity for this larger figure. In making such a reasonable adjustment you will find 9 out of 10 of the American people will support you with fervent hearts. Thank you.

Mr. FOGARTY. Thank you, Mr. Adams.

Mr. ADAMS. I will now be glad to answer your questions.

Mr. FOGARTY. Will you tell the committee what the American Cancer Society collected in their last drive?

Mr. ADAMS. $15,200,000.

Mr. RUNYON. $15,000,000, even.

Mr. FOGARTY. So you collected in your last drive about this same amount that we are being asked to appropriate for 1953?

Mr. ADAMS. That is right. We have had a steadily rising, even though slowly rising collection of funds.

Well, now, you may wonder why it is not possible to raise as much money as does the polio funds, for example. I served on that for many years from the time it was founded and I am familiar with it.

The difference is that polio last year collected some $33,000,000. About $3,000,000 of the total was used for anything that might be called research in the field. The other $30,000,000 went to the care of some 27,000 cases of polio.

Obviously, now, we have to be much more conservative. We cannot promise people to take care of the cases of cancer which are existent in the country, because it costs, for one thing, not less than $1,000 a year.

Well, now, there are probably 700,000 cases presently existing of cancer in the country. Seven hundred thousand times one thousand is the cost that we would have to pay. So, we have to go out with a less promising appeal.

Also, we cannot, obviously, on the Government's program or our own either, promise a quick and easy solution to this problem because a quick and easy solution is not available in this field. It requires great study and research over an extended period of time by competent people.

Nevertheless, we think that in the few years that we have been at work we have done fairly well in educating the public and in securing

a better cancer treatment and diagnosis facilities throughout the country.

Mr. FOGARTY. Mr. Adams, how much was collected by the Damon Runyon fund?

Mr. ADAMS. It runs about $1,000,000 a year.

Mr. FOGARTY. That is primarily for research, is it not?

Mr. ADAMS. Yes. Twenty-five percent of our funds plus some additional funds which remain in the local communities are spent for research. I think maybe a little more than that.

Mr. FOGARTY. You work in pretty close cooperation with the National Cancer Institute here in Washington and the people in the Damon Runyon organization, also, do you not?

Mr. ADAMS. Yes. Of course, I think that the work with the National Cancer Institute is on a fortunate basis from the standpoint of economy, of the use of people's money. We like to think that the people's money which was appropriated by the Federal Government was given to us as stewards and that the funds that you appropriate here for work in the State goes back to those States.

We met with the public health authorities of the States and the American Cancer Society which also has funds for those purposes, and of the joint effort goes on.

In the case of the national material which is necessary for the education of the profession, which is by the way one of the most important things—it is a terrible problem for the practicing physician to try to keep up-to-date since he left medical school with all of the new things that are coming up and which he must keep up with. He has to do that by various methods, by taking refresher courses and he must attend meetings, he must have literature, and so on.

The National Cancer Society and the National Cancer Institute do these things together.

For example, a very important conference is being held jointly in Cincinnati on March 2.

Then there are films for the education of the public. There is the women's film on self-examination of the breast, which was paid for and is promoted jointly without compensation. We work with economy all the way through in these things.

We on the Research Committee and the Cancer Society and the Committee of Scientists that works on the projects, the Committee on Growth of the National Research Council, its secretaries and its chairmen attend all of the meetings of the study groups of the National Cancer Institute and they do attend all of the meetings; and people in the National Cancer Institute attend all of the meetings of the technical group of the American Cancer Cociety.

So, all in all, you might say that the research funds are pretty much handled as though they were one.

We do not compete. We do not have duplication. The great weakness of the present structure of the National Cancer Institute lies in the lack of institutional grants, which are of extreme importance to the scientists of the Nation.

Now, the men that run the National Cancer Institute are troubled—they do not say so in words directly to me—I think they are troubled by the fear that if there are 77 medical schools in the country and there are only 5 or 6 or 8 or 10—I do not know how many, I would not

say over 12—institutions that ought to be given an institutional grant, that they would have pressure from Congress or somebody to pass out the whole grant to them, to favor—well, I say to them that with all of my experience on the Council, I have not seen any single bit of evidence on the part of any Member of Congress to influence one cent into any one thing.

Of all of the Members of Congress that have served during the 5 or 6 years, I have never known of one who tried, I have never known of any of these research or health programs to be subjected by any person or any party to the slightest pressure, which is a great compliment to the Members of Congress.

So, they pass on these institutional grants that they have to handle. They have got a group of scientists and laymen to pass on these things, and they can always rely on justifying the passing out of those funds, which is extremely important.

Mr. FOGARTY. Now, you spoke about the grant for construction. I remember the original program that was sponsored by the National Cancer Institute. It was a $25,000,000 building program.

Mr. ADAMS. That is right. If you will remember, Mr. Chairman, after a careful study by the American Cancer Society and the National Cancer Institute and the National Cancer Research Council—well, with a little bit here and a little bit there—it was spread over.

It has produced what was thought it would, that is, six additional dollars, that is about six to one in other funds.

Now this program was stopped. The then Director of the Budget said the program was stopped because all construction was going to be held up pending the next depression. I told him I thought that was a bad thing, and also that it was rather silly not to complete for a little more money these facilities without which they cannot carry on.

Mr. FOGARTY. I think they appropriated $16,500,000.

Mr. ADAMS. Yes, they did. There is another $8,500,000 which should be appropriated of which $5,000,000 is all urgently needed for the next year.

You know, Mr. Chairman, we have always come in with not generalized figures. We have always tried to come in with figures that go from the bottom and not just talk about $55,000,000 or $75,000,000 or $100,000,000. Every item has been carefully built up in the same way we do our own business.

Mr. FOGARTY. As you know, I was in favor of the construction program. We did make the attempt.

Mr. ADAMS. Yes, I know.

Mr FOGARTY But I must be frank with you and tell you that it is going to be almost impossible in any appropriation bill to go over the amount allowed by the Budget Bureau, although I think that in the health field we should. I think we should appropriate even more in some instances.

Mr. ADAMS. There is not any question about that.

Mr. FOGARTY. As you know we started the new clinical center in Bethesda in 1948 and this next fiscal year, 1953, we will complete, or nearly complete, the payment on that which will amount to about $60,000,000, for the land, building, and original equipment. Also there is some money in the budget for 1953 to start staffing this building.

We have also, as you know, supported institutes and research for other fields of medicine. We have not favored merely one particular segment of the health field. We are faced with the need for an overall problem and we like to be fair with all of these institutes. This committee has always been sympathetic, as you know, with all these programs.

Mr. ADAMS. You have been, more than anybody in Congress, responsible for the raising of the level of medical research in this country to its present state. That is a fact.

I have before me a very interesting sheet which shows what has been happening since 1946 and it is almost unbelievable when you look at the things that have happened.

I do want to call your attention to the fact, though, that all of these figures that represent Federal expenditures for these various projects, for heart, cancer, arthritis, neurological disease, venereal disease, dental programs, and so on, I call your attention to the fact that in that period from 1945 through 1952 the total expenditure in the whole field was $438,000,000.

Now, of that amount $200,000,000 was for tuberculosis and venereal diseases; $144,000,000 for venereal diseases.

I could not do any more than to say that the amount for these human diseases would be even less if this committee had not given the enlightened leadership which it has.

Then, we have the military expenditures. I will say this to you, that I know it is impossible for any Member of Congress to understand the nature of the size of the military expenditures that have been made. It is physically impossible. It is physically impossible to the man who is spending it to know, and I have been in a group who spent it in World War II.

So, all I am saying is that here is a thing in which your budgetary commitments do not allow more money, talking about the heart problem, the cancer problem or this problem of mental health, those are the three big contributions that you gentlemen made in the last 5 years, but I——

Mr. FOGARTY. Those appropriations are beginning to pay off, are they not?

Mr. ADAMS. They are beginning to pay off and they will pay off, period. That is my point, and it is demonstrated on a dollars-and-cents basis, not on a sentimental basis.

Mr. FOGARTY. You know, it is difficult for us sometimes to convince Members of Congress.

Mr. ADAMS. I know that.

Mr. FOGARTY. I mean, that research is necessary. We are asked the question many, many times on the floor when we have this bill under consideration, "What has been accomplished?" There are some Members of Congress that believe we are wasting the taxpayers' money by appropriating funds for research of this kind, and it is difficult to convince some of them that it is a good program. It is difficult for us as laymen to change their opinions.

Mr. ADAMS. It certainly is. I understand that, how hard it is to get the story over to them.

Mr. FOGARTY. Now, Mr. Adams, you spoke of 29 of the 55 new facilities that have been completed.

Mr. ADAMS. Yes.

Mr. FOGARTY. Do you have a list of the 55 facilities and the 29 that have been completed?

Mr. ADAMS. Yes.

Mr. FOGARTY. And the amounts of money that have been expended?

Mr. SCHWABE. For each one.

Mr. FOGARTY. Yes.

(The list referred to is as follows:)

List of institutions to whom construction grants were given and amount given to each

Alabama: Medical College of Alabama, Jefferson County Health Department	[1] $47,280
California:	
University of California at San Francisco	1,000,000
University of California at Los Angeles	700,000
Los Angeles County Hospital	[1] 35,255
University of Southern California	200,000
Colorado: University of Colorado	[1] 400,000
Connecticut: Yale University	[1] 250,000
District of Columbia:	
Georgetown University	[1] 148,500
George Washington University	200,000
Do	[1] 50,000
Georgia: Emory University	500,000
Illinois:	
University of Chicago	[1] 690,000
Stritch School of Medicine	[1] 47,300
Indiana: Indiana University Medical Center	126,300
Iowa: State University of Iowa	[1] 12,250
Kansas: University of Kansas School of Medicine and Medical Center	200,000
Maine:	
Jackson Memorial Laboratory	[1] 250,000
Do	[1] 100,000
Maryland: Johns Hopkins University	[1] 750,000
Massachusetts:	
Beth Israel Hospital	50,000
Boston University School of Medicine	[1] 62,750
Children's Medical Center	[1] 100,000
Massachusetts General Hospital	[1] 700,000
New England Deaconess Hospital	[1] 485,000
Tufts College Medical School	[1] 133,522
Michigan: Wayne University College of Medicine	250,000
Minnesota: University of Minnesota	879,438
Missouri:	
St. Louis University	625,000
Washington University	[1] 450,000
Do	250,000
New York:	
Columbia University College of Physicians and Surgeons	[1] 1,000,000
Memorial Center for Cancer and Allied Diseases	250,000
New York University-Bellevue Hospital	575,000
University of Rochester	[1] 434,368
North Carolina:	
Duke University	200,000
University of North Carolina	200,000
Ohio:	
Ohio State University	300,000
Western Reserve University and University Hospitals of Cleveland	300,000
Oklahoma: Oklahoma Medical Research Foundation	125,000
Oregon: University of Oregon Medical School	[1] 10,000

[1] Completed.

List of institutions to whom construction grants were given and amount given to each—Continued

Pennsylvania:	
Institute for Cancer Research	[1] $198,168
University of Pennylvania	[1] 56,208
Do	200,000
University of Pittsburgh	200,000
South Carolina:	
Medical College of the State of South Carolina	[1] 16,000
Do	100,000
Tennessee:	
Meharry Medical College	[1] 20,000
Do	[1] 30,385
University of Tennessee	[1] 491,458
Vanderbilt University	126,350
Texas: University of Texas	300,000
Utah: University of Utah Medical School	[1] 416,404
Virginia:	
Medical College of Virginia	[1] 10,585
University of Virginia School of Medicine	75,000
Wisconsin: University of Wisconsin Medical School	[1] 975,000

Mr. FOGARTY. I think that it would be well in the interest of time if the doctors will give their statements now, and then they may all be questioned by the members of the committee. So, Mr. Adams, do you want to introduce your first witness?

Mr. ADAMS. Mr. Chairman and gentlemen of the committee, I would like to introduce Dr. Leon O. Jacobsen, professor of medicine, division of biological sciences, University of Chicago, in Chicago.

Mr. FOGARTY. We will be very happy to hear you, Doctor.

STATEMENT OF DR. LEON O. JACOBSEN

Dr. JACOBSEN. If the committee will permit, I will submit to it later a statement I have prepared.

(The statement referred to is as follows:)

STATEMENT OF LEON O. JACOBSEN, M. D., PROFESSOR OF MEDICINE, DIVISION OF BIOLOGICAL SCIENCES, UNIVERSITY OF CHICAGO

Research with radiations is directed toward (1) the practical problem of cure and palliation of cancer, (2) the study of normal and disease states of the body using radioactive tracer techniques in attempts to find ways and means of diagnosing and more rationally treating various disorders and, (3) finding means of avoiding radiation injury or treating or reversing radiation injury once sustained.

The scientific advances made in these areas of research in the past few years are already of immeasurable practical significance to medicine. These advances and hopes for the near future if research is implemented by the funds needed for prosecution of research can only be high lighted in this presentation.

RESEARCH AND DEVELOPMENT IN THE FIELD OF PENETRATING RADIATIONS

X-rays and radium have been used for many years for the treatment of cancer. That cures are obtained with these agents and that palliation often makes possible a productive and comfortable existence for the cancer victim is well known. But these agents have well-recognized limitations. One serious limitation is that in the treatment of deep-seated tumors normal tissues in the path of the radiation beam are damaged to almost the same degree as the tumor itself. Thus, the amount of radiation necessary to kill the tumor may exceed that which the normal tissue can tolerate. Techniques such as rotational therapy with these agents have been developed in the past several years

[1] Completed.

which overcome this problem only in a limited way. The clinical use already made of the betatron, however, has proven that by using much more highly energized rays the differential dose to the tumor as compared to surrounding normal tissue can be greatly increased. This fact implies that cure rate and palliation from cancer will be greatly improved. The betatron and somewhat similar instruments such as the linear accelerator are now being installed in many research and clinical centers in order to properly exploit the possible advantages to the patient. The importance of these steps to the practical problem of cancer treatment will become more evident in the near future. The cost of the instruments and the staff required for their operation is prohibitive except in relatively large research and clinical centers enjoying liberal support.

A number of research centers are developing the proton beam for cancer treatment. This proton beam is generated by certain types of cyclotrons of which there are only three or four in these United States. As yet in none of these centers has the beam been put to practical test. Theoretical and research studies have shown that as opposed to the radiations now available this proton radiation can be directed to a deep-seated cancer in the body and deliver its cell-killing power without adversely affecting the normal surrounding tissue. The beam can be adjusted so that it will travel any desired distance and then deliver its charge. One might compare this approach to a guided missile which explodes only on a designated target. The enemy in this case is the cancer and the guided missile the protons. At the University of Chicago the cost involved in developing this beam for cancer treatment is thus far in excess of $1,500,000. It is estimated that an additional $500,000 will be required in the research and ultimate development of this tool for cancer treatment.

THE USE OF RADIOISOTOPES

Diagnosis and treatment

The radioisotopes produced in the uranium pile as a byproduct of plutonium production, and those made in the cyclotrons have already become of great practical importance in the diagnosis and treatment of disease. In the past several years especially, research has shown the directions which must be taken to utilize these tools with even greater benefit.

Currently only a small number of radioisotopes are used in clinical medicine. Among thees are radioiodine (I^{131}), radiophosphorus (P^{32}), radiosodium (NA^{24}), radiogold (Au^{198}) and radioarsenic (As^{76}). Some 200 remain to be explored. Only two will be discussed here.

Radioiodine (I^{131}).—The unique properties of radioiodine which make this radioelement of such great practical significance to medicine lies in the fact that it is metabolized and thus localizes (once it enters the body) almost exclusively in the thyroid gland; it becomes incorporated in the thyroid hormone (this hormone controls the pace of metabolism in the body). This fact has led to the use of this isotope in the diagnosis of diseases of the thyroid. If the thyroid is overactive (a disease known as hyper-thyroidism) the gland retains more radioiodine than normal; if the gland is underactive it retains less than normal (a disease known as hypothyroidism). By a simple test of the blood a diagnosis of the state of the thyroid can be made. A small harmless tracer amount of radioiodine is administered by mouth to the patient. A sample of blood can then be removed and the amount of radioiodine found in the thyroid hormone can be measured by the use of a Geiger counter. This is an instrument which measures each explosion of the isotope. Other methods recently discovered which can be used to diagnose the disease state of the thyroid are (1) measuring the amount of the radioisotope in the thyroid gland itself by measuring the atomic explosions as they appear on the skin surface over the thyroid gland and (2), by simple determination of the amount of radioiodine which appears in the urine. These methods are superior to the one used generally at the present time (basal metabolism or breathing test) to diagnose thyroid disease.

Radioiodine is now used successfully to localize tumors of the brain, and administered to the patient. Localization occurs in the tumor and it can then be located by scanning the skull with a Geiger counter which automatically records the rays coming from the localized radioelement in a three-dimensional pattern. This method allows the surgeon to approach brain surgery with confidence of operating in the exact area of involvement. Prior to this recent discovery the brain surgeon often did not know with certainty in which part of the brain the tumor was located.

Radioiodine is now used in the treatment of cancer of the thyroid. In 30 percent of these cancers which have spread widely in the body the cancer tissue will selectively take up radioiodine. The radioiodine bombards the tumor tissue and retards or stops its growth. At the University of Chicago more than 100 cases of carcinoma of the thyroid have been treated with this isotope. Both clinical and pure laboratory research have recently supplied clues which make this form of treatment even more effective. It has been found that repeated small doses of radioiodine administered to patients with widespread thyroid cancers will retard the function of the normal thyroid and force cancer tissue to assume enough normal function to increase radioiodine absorption in the tumor tissue. Many examples of the spectacular results from this radioisotope can be cited. A single case will illustrate how dramatic the effect can be. This is the case of a young World War II veteran with cancer of the thyroid which had spread to many parts of the body. He was brought to the hospital in a terminal state due to an expanding tumor in the brain. Radioiodine was administered repeatedly, the tumor in his brain and elsewhere was destroyed and he recovered. He has since married, is gainfully employed, and will undoubtedly remain in good health.

Radiophosphorus has been used to treat more than 500 cases of polycythemia. This is a disease which is characterized by the blood-forming tissue making more red cells than normal. It differs from leukemia in that the latter disease is characterized by the manufacture of too many white cells. The useful life of patients with polycythemia is now comparable to normal individuals. All that is necessary is a single injection of radiophosphorus at intervals of one and one-half to five or more years. This radioelement is useful alone or in combination with X-ray therapy, nitrogen mustard, and other agents in the treatment of chronic leukemia and related disorders. It, like radioiodine has recently been found to be extremely useful in localizing brain tumors.

RESEARCH WITH RADIOISOTOPES AS TRACERS

The horizon of medicine and all the disciplines which medicine embraces has been expanded manyfold by the use of "tracer techniques." Amounts of material previously considered too small to handle can now be traced and studied in the body or in the test tube. This is accomplished by labeling compounds by chemical synthesis—placing radioactive elements in strategic positions in the molecule. This can perhaps best be exemplified using sugar as an example. Sugar contains atoms of carbon and hydrogen only. Any of these ordinary carbon atoms can be replaced by a radioactive carbon atom. This maneuver identifies or labels the sugar because the ray given off by the radiocarbon atom in the sugar can be "tuned in on" by a Geiger counter. It is possible, therefore, to study how sugar is used by the body. This has already been done and many other complicated and intriguing puzzles of the body have been similarly explored.

Radioiron has been used to study the secrets of the body's manufacture of blood. Radiocalcium has been used to study the nature of normal and cancerous bone formation. Many other elements are being utilized for fundamental research on the nature of normal and abnormal (cancer) growth. These studies are bearing fruit and the harvest will be seen in the next few years.

Studies on the nature of radiation injury

Means of combating the radiation injury to normal tissue which occurs in the treatment of cancer is of tremendous practical importance. In the unfortunate event of an atomic bombing within our large cities, a crisis for which we must be prepared, a medical problem of unbelievable magnitude would confront us. We would be faced with thousands of individuals with radiation injury who require treatment in order to survive. No satisfactory methods are available to combat this threat. The antibiotics (germ killers) are of only limited value. Blood transfusions are likewise only partially effective. The amount of blood and plasma which would be required if an atomic disaster occurred could not be supplied. The fact is that no specific is as yet available to treat radiation injury once sustained. The solution to this problem, however, is within our grasp but tremendous effort in research and development will be necessary to bring the actual substance or substances to practical application. My colleagues and I have discovered the existence of a substance or substances which will save the lives of animals exposed to approximately twice the lethal dose of irradiation. It has been proven that this material is of a chemical nature and that it is manufactured by the blood-forming tissues of normal animals. The evidence for these facts is summarized briefly below.

It was found that if only the spleen were shielded with lead during the exposure of the balance of the body to a lethal dose of radiation the animals would survive. Animals irradiated with the same dose but without shielding of the spleen all died. The spleen of the mouse weighs only 0.1 gram or 0.005 percent of the body weight. The survival of mice exposed to 1,100 roentgens (units of X-rays) with spleen shielding is nearly 100 percent. In fact approximately 30 percent survive exposure to 1,300 roentgens if the spleen is shielded. This latter dose is more than 500 roentgens above the lethal dose for mice. The lethal dose to humans is thought to be in the neighborhood of 400 roentgens. If the spleen is shielded during the exposure of mice to a lethal does of X-radiation it (the spleen) may be surgically removed 1 hour after this procedure and yet the animals survived. In other words the spleen manufactures a substance which when made available to the irradiated animal for only 1 hour is sufficient to reverse an otherwise fatal termination. If fresh spleen from a normal mouse is injected into a mouse which has been given a lethal dose of X-radiation, the irradiated mouse will survive. Even as late as 2 days after exposure to lethal dosages of irradiation injection of fresh spleen is effective. Only 0.01 gram of fresh spleen is needed. This is 0.0005 percent of the mouse body weight and indicates the tremendous power of the injected tissue in initiating normal function and regrowth of those cells in the irradiated body which are critical to survival. Tissue from unborn mice (embryonic tissue) pressed through a fine steel mesh and injected into irradiated animals is also effective. Recently Lorenz at the National Cancer Institute has shown that bone marrow taken from normal mice and injected intravenously into mice given lethal dosages of X-radiation is likewise effective. We have shown as has Lorenze that spleen or bone marrow from rabbits or guinea pigs is also effective when injected into mice previously exposed to lethal irradiation. These latter facts prove conclusively that the factor or factors responsible is a chemical. It is produced by living cells and it is manufactured largely by the blood-forming tissue. Only minute quantities are necessary to bring about recovery from otherwise fatal radiation injury. This phenomenon has been demonstrated to be applicable to mice, guinea pigs, rabbits, rats, and dogs. Its effect in primates (monkeys) and man has as yet not been tested.

The problems which remain are to isolate the substance or substances involved, identify it chemically, and test its effect in proper experimental animals and in man. Isolation and identification will be extremely difficult and will require the talents and facilities of many scientists. The cooperative effort for which these United States are noted will do the job providing financial support is made available. The significance of these facts to medicine in general and cancer in particular are obvious. The significance of this problem to atomic casualties is also obvious. If the substances under discussion can be made available one might logically expect radiation injury to be early and successfully managed and thus reduce the impossible demands for whole blood which is expected in atomic disaster.

The research application of these discoveries to the problem of cancer has already been tested. Lorenz has shown that whereas a particular tumor in mice cannot be cured by conventional X-ray therapy it can be cured by irradiating the whole body of the mouse including the tumor if the spleen is lead-shielded during irradiation. The shielded spleen promotes recovery of the normal tissue of the body but the tumor is killed.

Need for study of effect of radiations on primates

Because of the expensive facilities and the high cost of monkeys little work has been done with radiation in this species. Scientists are agreed that this animal more closely compares with man than does any other laboratory animal. Since experimentation on human beings is limited to harmless procedures or desperate situations, work on monkeys must be expanded and accelerated. Study of radiation effects in monkeys is of particular importance since rational approaches to care of the human being must be worked out prior to the time when we may be faced with thousands of radiation casualties. In this connection we must also study higher energy radiations which are more comparable to the radiations which emanate from an atomic explosion. This can only be done adequately by making high-energy radiation installations available to research teams. These installations include betatrons, linear accelerators, and the like which are extremely costly. Some evidences available indicate that great differences in biological effect exist between 250,000-volt X-rays which are generated

in the standard research machine and the 3,000,000- to 50,000,000-volt rays generated by betatrons and comparable instruments. This possibility must also be explored for practical reasons.

A new approach to treatment of cancer

In 1941 Charles Huggins demonstrated that the growth of cancer of the prostate, even though widely disseminated in the body, could be inhibited by orchiectomy, removal of the testicles). It was shown that elemination or inactivation of the male hormones of a particular chemical configuration was responsible for this tremendously important effect. A new principle, in fact a new chapter, in the approach to cancer research was opened by this discovery. Certain cases of cancer of the prostate could be adequately controlled, the patient's suffering relieved. Many of these hopelessly incapacitated victims of cancer were able to resume a comfortable and productive existence following a simple (orchiectomy). Later it was found that no operation was necessary as a female hormone (estrogens) given by injection effectively controlled the disease. Concomitant with these discoveries it was found that this group of tumors which spread to bone elevated a chemical known as acid phosphatase in the circulating blood. It became possible therefore to use a simple test of the blood to determine whether a potential cancer-killing agent was effective. If the agent was effective it reduced the acid phosphatase level in the circulating blood. If the agent was ineffective no change in the blood acid phosphatase was produced.

Recently Huggins has made another significant discovery. He has presented proof that the adrenal glands in certain cases of cancer stimulate the cancer's growth. Removal of the adrenal glands deactivates the cancer. Twenty-eight human patients with hopeless widespread cancer have been operated upon and both adrenal glands removed. Certain of these patients suffering from cancer of the prostate or breast have made spectacular improvement. Other patients with tumors such as melanosarcoma and carcinoma of the lung obtained no regression from adrenalectomy.

The fact that adrenalectomy can induce regression of certain highly malignant cancers but have no favorable influence on yet other concers indicates the magnitude of the problem we face in cancer research. Most kinds of cancer differ in their metabolic behavior; the approach to each must be individualized. On the other hand some of the facts discussed show that important strides have been made; we have a foothold. We need only to pursue the problem of normal and cancerous growth with greater vigor and enthusiasm.

Dr. JACOBSEN. I am going to try in a very brief time to present a few of the things which have come along very recently in my own area of interest. I am going to speak largely in terms of radiations and all that they imply and then I am going to touch on a particular way of treating cancer in the last part of my presentation.

Let me first say a word about penetrating radiations. These are the conventional forms of treatment of which you are all aware. You all know that with conventional treatment, such as with X-ray radiations, there are occasional cures and certainly you will all agree that they are palliable, that is, there is palliation of the condition, at least.

Now, the difficulty, however, is that giving these radiations to patients we are confronted with one problem which is particularly difficult.

That is that if we are dealing, let us say, with a deep-seated cancer and the beam is coming in, the normal tissue is apt to get as much as the cancer. Therefore, we are unable to give a killing dose to the tumor.

That is one of our problems from the practical standpoint of cancer treatment.

Now, what have we done about that? Well, I think that you are aware of the fact that for many years research has been directed toward developing special instruments that will provide the tumor in the middle of the body with a greater dose than anything on the

other side or tissues before you get to the tumor. These have been developed.

We have the betatron which is now in operation. It went into operation this year. The dose of the tumor is definitely higher on account of that. We felt, therefore, that we could give a bigger dose without having a large skin irritation and sloughing on the inside.

Now, this is not perfected yet, and for that reason these things are being studied extensively all over the country. I cannot tell you offhand how many betatrons there are in operation now, there are not very many.

Then, there is a new development which is known as the linear accelerator, which has the same idea but it is probably a much cheaper approach to the problem. This has already been developed, so this now is a practical thing; that is, practical in the sense that it can be used, but it is still very expensive.

Now, then, there is another thing which is right now practical, not in the sense that we can do it tomorrow, but it has been tried out, and that is the proton beam. Proton is a certain type of radiation which eminates from cyclotrons.

Now, in this case, however, you can put your beam, in fact your explosion of your atom, at any point that you want to. If you are after a deep-seated tumor in the body, the whole thing can be exploded within the tumor and nothing happens on the way in and nothing happens beyond the tumor.

This is only practical in the sense, Dr. Hedrick, that it is now available, but it has not been used upon human beings.

I will put in a statement here that we have spent $1,500,000 to get this thing and it will take another $500,000 to get to use it on the patients, because it is difficult to use these large machines, which take a whole half a block—in other words, it is difficult to get the patient in, that is to have it beamed so that you can do the whole thing with facility.

Now then, we are there faced with the problem of getting the radiation to the right place in the patient for cure or for palliation.

At the same time we are interested in what can we do if we have a patient treated with radiation, radioactive materials, to take care of the normal tissue which we destroy, let us say, or inhibit. I will come back to that a little later.

Let me say a few words about radioactive materials. I think that you are all familiar with the work that has been done in this field.

Let me just name a few that are being used currently.

There is radioactive iodine. There is also radioactive phosphorus. It is used in the treatment of leukemia and lymphomas and polycythemia. Polycythemia is an increase over the normal number of red cells.

There is radioactive sodium and radioactive arsenic, and there are others that have not been developed yet so I canont talk about them from the practical point of view, but they need investigation.

I would be glad to demonstrate something about the iodine problem, if you are interested. I have them on slides, or I can go on to something else, if you would like; but if you wish to see how we handle iodine, I can show you that from the first of those slides.

Mr. FOGARTY. Yes. Go ahead, please.

Dr. JACOBSEN. In this first slide, we have a patient with a carcinoma, a cancer of the thyroid gland. So, we assume that he has cancer in the chest. We do not know yet, because this man has a mass in the thyroid region; we suspect that because he has those glands in the neck. He also has some lesions in the chest.

So now we will give him a dose of radioactive material. He drinks it just like you drink a glass of water. There is no reaction whatever.

The next slide shows that the next day we can find out whether he has any radioactive iodine in these little masses which we find in the body. In other words, we can check up and find out where the tumor has spread to.

The next slide shows how the surgeon comes along. We have to make a definitive diagnosis and we do that from these tissue sections from the biopsy, over here on the right. This black part is made by the disintegration of the iodine on a photographic plate, and it shows that the tumor took up the iodine.

We will have the next slide. Now, if the tumor takes up the iodine, and it does so in approximately 30 percent, not in 100 percent, but 30 percent of these patients, if the tumor takes the iodine up, then it selectively bombards the thyroid, because the thyroid only takes up the iodine. In this case this slide shows that.

The next slide, you can obviously see that the mass has gone away. This is a practical result of research. Let us have the next slide.

This woman is perfectly well. This shows her chest, and I think even that you can see the large mass in the middle of the chest just above the heart is much improved. The one that I have not put on the screen and run today is a completely normal chest. This woman, for all practical purposes, has recovered.

The next slide. Now then, this happens to be a young veteran who came in as a mental condition, because he had a carcinomatous condition which had gone to the brain and the brain was expanding and so there was pressure in the head. Now, this exemplifies two things. First, we knew he had carcinoma of the thyroid from biopsy. Radioactive iodine was administered to him.

Second, we could locate that cancer in his brain because we knew by a three-dimensional Geiger counter, we could find out exactly where the tumor was. I will come back to that a little later.

But the fact is, this boy took up radioactive iodine in his cancer and he has completely recovered and he is married and he is back at work.

So much for carcinoma of the thyroid.

And now I want to say something about diagnosis of tumors. Let us say that we take a brain tumor which, as you know, is one of the worst kind. One of the great problems is that they are so difficult to locate. After all, a surgeon cannot go into the head and take out the whole brain. He has to know where to go and to take out only that small part with the tumor.

It is now possible with radioactive iodine given intravenously in a tracer amount, or it is also possible with radioactive phosphorus given intravenously, to locate these tumors because the tumor takes it up in the brain and you simply put your Geiger counter on and locate it and then surgically it can be removed.

We will have the next slide. I am only going to say a few words about phosphorus. I told you a while ago that polycythemia is a

disease in which the blood-forming tissue makes too much blood. That is the effect of what I said.

Well, phosphorus is an extremely helpful radioactive material in this respect—do not pay too much attention to these slides—it simply shows that the red count comes down to normal and remains so.

In this particular case you can see that it remained down for 15 months. Now, it can remain down 15 months, or it can remain down longer, to five or more years.

Now, this is a practical thing because these people died in 10 years or less, and now they take the treatment and lead completely normal existences.

The next slide. This is a new radioisotope, it is radioactive arsenic. It is very difficult to handle. This shows what happens. Here you can see what happens in leukemias.

Leukemia is a disease in which too many white cells are made, and here there was a single injection, which brought it down to a perfectly normal level. The next slide, please.

Now, I am going down to so-called fundamental research, but we are not getting too far away, in a sense, from the practical problem. I am going to show you that sometimes we have a practical answer from a basic research.

One of our great problems today is not only the treatment of cancer with radiations, but we have the fact that we need something to protect the normal tissue while we are treating the cancer with radiation. We are also faced with the fact that if we are having atomic explosions, if we ever have those in our country, in one of our cities, we will have hundreds of thousands of casualties and those casualties require blood, they require everything we can do to keep them alive. This little presentation is going, I hope, to indicate to you that we can do something about that problem.

These are mice. This mouse is asleep from a drug called nembutal which is in some ordinary sleeping pills, as a matter of fact.

Now, while he is under this anesthetic, an incision has been made in his abdomen and his spleen has been taken out. You can see the spleen here in this little case in the left side over here. This spleen weighs one-tenth of a gram, and it is approximately five-thousandths of the body weight.

Next slide. Now, we put the cover on this, so that we have the spleen within a lead case, shielded. The rest of the animal, obviously, is not shielded.

Now, then, we irradiate this animal with the ordinary therapeutic machines. And just remembering this picture now, let us have the next slide.

I will not confuse you with all of these figures that you see here, but I want to point out to you that in animals and in man, in each case there is a certain number of units of radiation that causes animals to die or your humans to die. That has been well demonstrated.

In mice, 600 R—just remember I am talking now in units—will kill half of your animals; 700 R will kill every single animal. No one will survive.

On the other hand, if you shield the spleen while you irradiate the body, every one of them survives. In fact, we can give them up to 1,025 R to the whole body if we shield the spleen, and almost 100 percent of them live.

If you look at the bottom, you see that with 1,300 R, 27 percent survive, which means that you are giving them 500 R above the lethal dose and that some still survive.

Next slide. Again, this may confuse you. It is only to show you these photomicrographs of bone. I only want you to pay attention to this lower part. This shows exactly what happens to the blood-forming tissues in the bone after radiation. There is absolutely no blood formed in this bone.

The one on the right is from an animal which had only its spleen shielded, and it is completely normal and it becomes normal in a matter of just a few days.

Next slide. Now, I am back to the mouse again. This is an animal which has been irradiated and his spleen has been shielded. Now, if you just put the spleen back in the abdomen and sew him up, then this animal lives happily ever after.

Now, what I am going to do now is to find out how long does this animal have to have its spleen out. It has been irradiated. You have shielded the spleen. You want to know how much of the material that is made by the spleen the animal needs.

So, I take this spleen out, except that I leave it in only 1 hour and if I leave it in only 1 hour, he lives; and if I leave it in for 5 minutes, about 25 percent of the animals live. Of course, if I take it out immediately, they all die.

In other words, these animals only need their spleen which has been shielded for approximately half an hour or 45 minutes. It has already done the trick and the animals live with twice the lethal dose of radiation.

Next slide. This slide simply indicates that.

Next slide. Now, so far, we have shown that there is a substance, there is something that will help us to combat doses of radiation which are actually four times that which kills the human being. Now, how else can we do this besides shielding the spleen? You might say, after all, just wear a lead case around your tummy, if you are thinking about atomic bombs. Well, this is not practical, obviously, when you are treating tumors, because you cannot put lead all around the tumor and protect the rest of the body.

So, we will have to find another way of handling them.

So, let us irradiate the whole animal, not shielding anything. Let us give him a lethal dose and now let us put some spleen in this animal, and here we have done that, and it is effective. As a matter of fact, it has been effective 2 days after the radiation has occurred.

Next slide. Another thing. You can take bone marrow from your mouse and give it to another mouse. In fact, we have now gotten to the point that we have proven we are dealing with a chemical substance, because we can take tissue from a rabbit and it works in a mouse, and we can take tissue from a guinea pig and it will work on a mouse.

In other words, it is not the cell, it is a chemical substance within that tissue that you have transferred.

Now, what does that mean to us from the viewpoint of cancer treatment or treatment of people who have been irradiated by an atomic bomb, or what-have-you?

It means this, that there is a very good possibility that with some more work we can have this in a form, just like insulin and just like liver extract, and simplify the treatment of these people; and we can increase doses of radiation in the treatment, and that is a practical application.

Now, before I go on to the last item, I want to say a word about the need for research with primates, that is, the monkey. We do most of our work with mice and with rabbits and with guinea pigs because they are all less expensive. Monkeys are costlier and they take much more facilities and 1 monkey takes the same space where you have 500 mice.

There is another reason why we need monkeys and this other reason why we need monkeys to work on is that we cannot do everything on the human being. The monkey has been described by most people as most nearly like the human.

So, since we cannot do all of this work on the human being, since we cannot put him through a 1,000 R radiation, we have got to have experimental animals which are as close to the human as possible.

Furthermore, we have got to study the high-energy radiations, such as given off by the betatron and the linear accelerator that I told you about a while ago.

We need to have much more experience, need to know more on the effects of these high-energy radiations on the human being, on a much larger scale, not only on cancer, but from the practical fact that the atomic bomb has radiations in this area of energy.

Let us say that the betatron goes up to 50 million, or 100 million volts, well, that is something like what we have got in the atomic bomb.

The last thing I want to tell you about is a very practical thing. These are the adrenals of the human being. This is a carcinoma of the breast.

Nevt slide. This is to show you the normal pelvis on the top. The one below shows you the patient with carcinoma, cancer of the breast. There is metastasis of the bone and I think that you can see that these bones are practically all eaten up, and this patient is practically bedridden.

Next slide. Now, the adrenals were removed surgically. This is not a simple operation, and I think that Dr. Rhoads will tell you that the medical management of patients like this is difficult and we could not do it except for the research that has come along in the last couple of years.

This shows you how we know that this patient has been helped because this particular chemical in the blood comes down.

Next slide. Now, this patient had carcinoma of the breast. This is the patient. May we have the next slide, please?

These are just simply to show you before and after the adrenectomy. This large mass under the breast surface is healing and disappearing.

Next slide. This simply shows—well, this is the cancer in the tissue of the breast.

Next slide, please. This shows, a few days after the operation, what has happened to the cancer cells.

Next slide, please. Lastly, this is a man with carcinoma of the prostate, cancer of the prostate, common to man. This man was a business-

man. Over here on your left I think that you can see these two shadows, one here and one on the right. These are large, what we might call snowballs of tumor tissues.

Well, this is a hopeless situation.

Now, you can see on the other side, November 8, 1951, that these things are healed up and you have nothing but scar formation. Now, that is a practical thing.

The only difficulty is that this operation does not cure every type of cancer. It is only effective in carcinoma of the prostate and carcinoma of the breast, and then only in about, I would estimate, 30 percent of those, perhaps. They have only had 20 or 30 patients operated on so far in the whole country; but it has been spectacular.

Mr. DENTON. Can one live after you take that gland out?

Dr. JACOBSEN. Yes; you substitute for the adrenals with cortisone. That is the drug which is manufactured by the adrenal glands in the normal individual and that, as you know, has been synthesized.

Mr. HEDRICK. Is there anything to these reports about increases in tumors of the thyroid gland?

Dr. JACOBSEN. You mean as the result of the treatments?

Mr. HEDRICK. No; it seems to be on the increase, according to the reports.

Dr. JACOBSEN. Well, I do not think I am prepared to say that there is, Dr. Hedrick. It might be, certainly, in the sense that we have more; but I do not know how many we have seen, about a hundred and twenty-five or one hundred and fifty in the last couple of years. I think that Dr. Rhoads, who has been working in that field, has probably seen several hundred in the last couple of years. Where you are doing a lot of work in the treatment of a particular disease, you are apt to see a lot more.

Mr. SCHWABE. It is more prevalent in some areas than others.

Dr. JACOBSEN. That is right. Also, the patients migrate to where you are doing some work on it.

Mr. ADAMS. Next I would like to introduce Dr. Farber. He is professor of pathology at Harvard University, School of Medicine, Boston, Mass.

STATEMENT OF DR. SIDNEY FARBER

Dr. FARBER. Mr. Chairman, and gentlemen, may I submit a prepared statement to you?

Mr. FOGARTY. Certainly.

(The statement referred to follows:)

In support of the plea for greater support from the Federal Government for cancer research and for funds for research fellowships and institutional grants, I should like to present an illustration from one of the fields of cancer research which holds great promise. This concerns the status of chemotherapy, or the use of chemical substances in the treatment of cancer which is beyond the reach of surgical or radiological techniques either because the cancer is widespread because it has been discovered too late, or because the cancer is of such nature that it is disseminated throughout the body, as for example, leukemia or lymphosarcomatosis.

CHEMOTHERAPY OF DISSEMINATED CANCER

The use of chemicals in the treatment of widespread cancer, incurable by surgical or radiological techniques, had long been a dream of scientists. By 1945 the sum total of research contributions based upon patient, hard work as well as in-

spired thinking on the part of scientists in many different fields, including chemistry, physics, nutrition, hematology, experimental pathology, pharmacology, made possible the first chemical treatment of incurable cancer with results of temporary value to the patient.

TYPES OF RESEARCH REQUIRED BEFORE A CHEMICAL MAY BE USED ON A PATIENT

It may be of interest to summarize briefly what kind of work must take place before a chemical can be given to a patient with incurable cancer. Two general methods of attack may be employed. The first includes a careful testing of known chemical compounds by the hundreds and thousands against experimentally induced tumors in mice, or against tumor tissue grown under artificial conditions in the chick embryo or the tissue culture.

The second method is based upon theoretical considerations which lead the investigator to synthesize new compounds which it is hoped will possess cancer-destroying powers. Whichever path is used, the chemical compound must then be tested for evidence of biological activity by the methods of microbiology, or by more direct methods which give evidence of cancer-destroying activity against experimentally induced tumors in the mouse. Such "active" compounds are then studied carefully for toxic properties and for clues to their mechanism of action against the cancer cell and against the animal body in several species. The importance of such toxicological and pharmacological study lies in the fact that some chemical compounds, while caner-destroying, have a greater toxic effect on the body than on the cancer, or may cause important damage to the kidneys, the liver, the brain, and to other organs, in addition to the cancer.

Finally, after these studies which may take from 6 months to 2 years following the synthesis, the new chemical compound is administered with great care to the patient with incurable cancer. It should be made clear that research in the popular sense of the term, is not conducted on the human patient. These new forms of treatment, are given only as part of the total care to the patient with widespread cancer and primarily for the good of the patient. A special critical ability is required of the doctors who do this kind of work and they must have great experience with the life history and biologic behavior of tumors. Conclusions concerning the effectiveness of chemicals on cancer in man are difficult to achieve. Months, and even years, must pass by before a critical evaluation is possible. Progress in the synthesis of new cancer-destroying chemicals in the research laboratories has been great since chemotherapy of human cancer became an actuality in the past 7 years. Adequate facilities or the expert medical teams for carrying out critical studies of this kind are so few that we are faced with the remarkable but sad situation of having more chemical compounds available, carefully studied in the laboratory, than have been administered adequately under proper conditions to humans with incurable cancer. It is impossible to decide from observations on animals and test objects used in the laboratory alone whether a chemical compound will be effective in man. Final conclusions can be drawn only from observations on man.

SOME RESULTS OF CHEMOTHERAPY

There are available today a number of classes of chemical compounds which are of great interest and even importance in the treatment of patients with incurable cancer. These include nitrogen mustard, a group of compounds known as folic acid antagonists, such as iminopterin, compounds such as triethylenemelamine, and related chemical compounds, and others which will be considered by some of my colleagues. Some examples will be given.

THE TREATMENT OF ACUTE LEUKEMIA IN CHILDREN

Until 1947, the usual period of survival in children with acute leukemia was under 1 year; most children died within a few weeks to a few months after proved onset of this form of cancer. There is still no cure. Great strides, however, have been made. In 1947 a new direction of research resting heavily upon the contributions of the past, led to the use of chemicals newly synthesized by the research workers of the Lederle Laboratories (folic acid antagonists). These produced great improvement in about two-thirds of the children with acute leukemia treated. We have just reviewed experience of the Children's Cancer Research Foundation in Boston for the forthcoming Second National Cancer Research Conference to be held in Cincinnati in March 1952. Of 315 children with acute leukemia treated in the last 4 years important improvement and

increase in survival period have been produced in approximately two-thirds. Comparable results have now been obtained in several institutions in this country. We are happy to report now that a boy of 6 has been in constant remission for 27 months; that a girl of 8 is alive 35 months after the onset and that one boy of 11 is in school and playing actively in sports 36 months after the appearance of the leukemic cancer.

Because of the eventual resistance on the part of the cancer cell to these chemicals, we described these effects as temporary in nature. If research now in progress could produce a means of overcoming the resistance of these cancer cells to the very chemical compounds to which they had once responded so well, we would have available in these folic acid antagonists for use in the treatment of acute leukemia a chemical which could be compared in value to that of insulin in the treatment of diabetes.

CHEMOTHERAPY IN OTHER FORMS OF CANCER

Chemical agents administered as part of the total care to patients with many other forms of incurable cancer have produced temporary effects varying from weeks to months, and in some instances up to 4 years beyond the expected survival period. Encouraging results on adults and children have been reported from a number of clinics in this county. These include patients with Hodgkin's disease, chronic leukemia, lymphosarcoma, neuroblastoms, embryoma of the kidney, certain brain tumors, some cancers of the breast, the bladder, and the prostate and even hopeless cancers such as those arising in skeletal muscle. Pain has been reduced or obliterated, increased survival has been produced, and in many instances a state approaching the normal in health has been achieved for months or longer. There are no cures. Life, however, has been made more bearable and patients whose lives are prolonged may be alive to take advantage of the next important discovery. Evidence is at hand to permit a restrained optimism concerning greater results. The details of these experiences in a number of institutions give evidence for the conviction that we have entered a new era in the history of cancer research and treatment.

PRESENT NEEDS

We urge that more support is required for basic research concerning: (1) the mechanism of action of chemical compounds; (2) a search for new chemical compounds; (3) the discovery of means of overcoming resistance on the part of the cancer cell to the chemical compounds, and (4) efforts to find a direct, rapid method of ascertaining whether a chemical compound may have cancer-destroying powers of interest to the human. Apart from this great need for support of basic research, such as that now being carried out at the National Cancer Institute and in many public and private institutions in this country, there is grave and immediate need for funds so that the chemical compounds now available or soon to be made available may be applied to man under proper conditions. The cost of the hospital care required by patient with widespread cancer, receiving a chemical compound, varies from $20 to $30 a day in different parts of the country. The number of doctors, nurses, and medical workers trained to carry on this kind of work on the patient with incurable cancer is too small to meet the requirements of this opportunity for rapid progress. Research fellowships are urgently required for the training of doctors in this new kind of work, and the value of institutional grants and grants for the support of "research beds" cannot be measured in terms of dollars alone. Such grants give freedom for rapid progress which would be impossible under more restricted conditions.

SUMMARIZING STATEMENT

The dreams of doctors and scientists for chemical agents which might have at least some effect upon incurable cancer in man have been realized. More than 20 chemical compounds have at least a temporary effect upon widespread cancer of several different unrelated kinds both in adults and children. This achievement rests upon the solid work of those in the basic disciplines in many different fields. Now on the basis of actual accomplishment with new techniques acceleration of work in the basic aspects in the chemotherapy of cancer must be made possible. Furthermore, more rapid progress in the application of these chemical compounds to the patient with incurable cancer will be impossible until

more facilities are made available in this country for the care and study of these patients according to the pattern laid down in the handful of institutions in this country. Brains and talent are to be found in all parts of our country.

It is gratifying indeed to be able to state on the basis of the experience of the last few years that one more important direction of research leading to what promises to be effective therapy of "incurable" cancer has been demonstrated. It is earnestly hoped by all who have knowledge in this field that this direction will be explored without delay to the full extent of our public and private resources.

Dr. FARBER. Mr. Chairman and gentlemen, I have taken as my theme this morning one aspect of cancer research, chemotherapy, which is the administration of chemical substances through the mouth or injected into the body, in patients who have cancer which is too far advanced for surgical treatment or treatment by radiation.

I have chosen that theme to illustrate several different points.

In the first place, we may speak of accomplishment in the field of research and we may speak, too, of a field that shows great promise and I think we may use this as illustration finally of the cost of this kind of research and the need for it which are here and which can be met by financial support, no matter from what source—we hope in part from Federal funds.

Now, about 1945, as recently as that, the whole field of chemotherapy came to a starting point, as far as cancer is concerned, on the basis of the tremendous amount of research which came to us from basic sciences in many fields unrelated to medicine, and if we were to make a listing of the basic research that made that advance possible for the human being, I think you would have to go into the fields of physics and nutrition and so on, and the sum total of all of these efforts made the next step possible.

The first of these chemicals which is employed in man naturally came to it from the field of the military, from wartime research that the gentlemen at this table participated in.

I think it might be of interest to mention what happens in research before we can get a chemical compound which may be administered to man. I will be very brief about that.

There are two general methods used in finding a chemical compound. The first is a very patient study of every chemical compound that might conceivably be of interest. That means a mass screening of all the compounds. The largest study of that kind was initiated by Dr. Rhoads in the Memorial Hospital in New York and there are other people doing that work in private institutions, in pharmaceutical institutes, and then there is the National Cancer Institute, where they have initiated a procedure for many, many years to find evidence of the activity of chemical compounds on tumors.

Then, there is a second method where chemists are asked to synthesize chemicals, and some of these compounds have proven to be of interest.

No matter which method is used eventually we must find whether these compounds have biological activity and they are very expensive methods, carefully worked out by biologists and experimenters in the field of research, to demonstrate that a chemical compound is active in the bacterial metabolic system and when we find compounds like that, then the assumption may be made that it may be used in the study of tumors.

Now, once we find a chemical compound which has cancer-destroying power, then we go to cancer of the mouth or the breast—I want to say here that although these methods are unquestionably valuable and have come up with compounds that we are now using in man, there is need for a great deal of basic research to find some very rapid and accurate method of predicting that a chemical compound will have cancer-destroying power.

Some of the finest minds in the country are now working in this field and there is need for many more research people to attack this very fundamental problem in chemotherapy.

Now, once you prove that a chemical has cancer-destroying power, then you must go through a whole series of animal species, the mouse, the rat, the guinea pig, the rabbit, the dog, the cat, the chicken, then to study the action of the chemical compound for evidence of poisonous action and for evidence of its action in cancer.

So then, before we get to man, we are prepared with a whole series of data which will permit us to know how to use the compound most intelligently, without harming the patient; so finally we come to man.

I think it might be well to say a word about the patient as a part of the research team. Of course, there is no research in the loose sense of the term carried on on the human being; not in this country at any rate. I think it is important to emphasize that when we talk loosely about using chemical compounds on human beings in a study of the action of the chemical compound on a patient.

I would like to put it this way, and all of us who do this kind of work have this point of view, that we use a chemical compound or any new agent as a part of the total care given to the patient whose cancer is beyond relief. These patients have nothing else to look forward to except just a very painful period leading shortly to death. So we give them what we call total care.

We give them all of the medical and surgical treatment that is available today. We make them as comfortable as possible. We pay attention to their happiness and to the mental problems of the patient and his family in such circumstances. And then as part of his total care we give the chemical compound or the new agent, and once we being that, we have to have that patient live and we must keep him alive if we are to get any results. There is no such thing as injecting something and either it works or it does not work and the patient is forgotten in the process. There is nothing like that.

That is the kind of work that is going on in all too few places in this country because the facilities are not available for a great deal of this work and the cost is tremendous. It costs $20 to $30 a day for beds and we must have a large number of doctors and nurses and medical workers who can help care for these patients properly and take care of the whole patient, not merely his cancer, and we must train these people. There are not enough trained people in this country to carry on this kind of work.

Today we have the very peculiar and what I regard as unfortunate situation of having laboratory research actually far in advance of the application of the results of laboratory research to the patient with real cancer. I think that is a happy situation in one way but it is sad indeed that chemical compounds which might conceivably be of great help to patients now having cancer cannot be administered because there are not enough teams and facilities to do it.

I might illustrate this with you permission, Mr. Chairman, with a few lantern slides and point out some of the problems and also some of the accomplishments.

I am going to begin with a man, an adult cared for by some of the members of our group. He has a kind of a cancer which is incurable once it has spread.

Now he was treated with one of the newer chemical compounds which has come from the research laboratories. It happens to be triazene and that was in November. Next slide, please.

This shows at the date of the subsequent treatment of this patient the ultimate disappearance of the tumor, by the middle of January.

Now the reaction in this by the men doing this kind of work is to see if that will appear again spontaneously. We have seen that again and again and so we want to see whether this is going to return without treatment or whether further treatment of the same kind will cause disappearance once more.

Now, that requires time and it requires facilities, waiting for an answer which may be given to you in 6 months or a year from now, whether that thing will spontaneously recur—or it may occur in some other part.

The next slide shows a photograph by Dr. Lewis Wright, the director of the Cancer Research Institute of the Harlem Hospital in New York.

This is another tumor. Here TEM was used. This is a patient with leukemia after 6 months' treatment.

The next slide shows the patient with a very marked disappearance of these tumor masses. Now, this is a new class of chemical compounds. A great number of analogues of these compounds will be studied in the next year or two and at least two of them have been of great interest already and Dr. Rhoads can tell you more about them. Observations have been made by him and other people in this field.

Here is a chemical compound which causes change in this tumor and a number of other related tumors. Next slide. This is a photograph of a child with acute leukemia. I understand that the members of the committee here heard discussion about leukemia before and I would like to bring the discussion up to date, to show the progress in the last year.

Now, acute leukemia is a kind of tumor which affects children more frequently than adults. The usual course of events is death after a few weeks or a few months, survival rarely lasting for more than 1 year after the inception of the disease. It was a miserable condition prior to 1947.

The usual treatment was verification of the diagnosis, transfusions, and then a return of the child to his home to die. Facilities were not available for the care of these children.

We now have a series of related chemical compounds recently called the folic acid antagonists which have an effect upon acute leukemia to a very striking degree.

The next slide shows a photograph of the child, one of the children treated, about a year after we had the first of these compounds to use, and it shows the effect upon this child. The child was in misery and pain because of the great involvement of the skeleton which you cannot see here on the slide. This slide, I meant to say, shows it before the treatment.

The next slide. After a few weeks of treatment you see this extraordinary change, the return to an approximately normal condition. This is in 1948. Five months later the child died suddenly in Georgia of brain hemorrhage. Hemorrhage is one of the great problems in acute leukemia and it still demands special research and attention.

The next three slides will bring us up to date on our experience. Comparable experiences have been reported from a number of institutions in this country.

In the last 4 years in our group we cared for some 315 children with acute leukemia. I will just summarize these figures. I have them because I summarize them for the second cancer conference which the American Cancer Society and the National Cancer Institute has called for in Cincinnati in the next few days, so I have these figures at hand.

Of these 315 children treated with folic acid antagonists as part of their total care, two-thirds have showed marked improvement. One-fourth of them have showed what we would call complete remission.

Now, here is a photograph of a boy from Virginia who has gone 27 months in complete remission. That is from the folic acid antagonist treatment alone, one treatment given daily during that time with no other form of therapy employed.

Now, if you were to examine him at this moment you would be able to find no evidence of acute leukemia.

The next photograph is that of a little girl who has gone 35 months since the onset of her tumor, as proved by chemical and laboratory methods.

The next one shows a boy who has survived 56 months now after the onset of his tumor, who goes to school and who plays in sports and who does figure skating. If you were to examine him at this moment, you would not be able to find on clinical examination that he has any tumor. You could regard him as a normal child, but if you were to look at the bone you would find leukemic cells beginning to come back, although he is still on the same therapy which has given such magnificent results.

I want to make it quite clear that there is still no claim that there is a cure for acute leukemia, but these chemotherapeutical compounds given as part of the total care have been responsible for a marked prolongation of life and a great increase in the survival period.

There is one problem that faces all of us working in this field, and that is that a chemical compound which affects the tumor cells so markedly meets eventually a condition that we will call resistance on the part of the leukemia cell. A great deal of research is going on in this country at this moment to try to understand the reason for this resistance and how to overcome it.

I would say this—and this is a considered statement—that if we could find the means of overcoming the resistance of the tumor cells to the chemical compound to which it has once responded, then these compounds that we have been using for acute leukemia will have as much value for leukemia as insulin has for diabetes.

I think that summarizes the state of our knowledge in that field. Let us have the next slide.

This is a very unpleasant picture, and yet it is one that we see constantly, and because it is unpleasant it must not be kept from the knowledge of those of us who are interested in cancer.

This is the last stage of neuroblastoma, a tumor arising out of the adrenal glands or similar tissues in the body, and it spreads widely in the skeleton behind the eye; in the late stage this is how it looks, as you see on this slide.

In some 150 children with neuroblastoma cared for before 1947, death occurred usually in 5 to 9 weeks and invariably once the skeleton was involved and the methasthetic processes.

The next slide shows the baby 4 months after we found the evidence of neuroblastoma in the abdomen. It had spread to the liver, with involvement of the bone marrow, as we could tell from examination.

The next slide shows this boy here, the same child, in December very much alive now. He has gone 2 years since we have proved evidence of widespread involvement of the skeleton, after he was treated with chemicals alone, with folic acid antagonists and TEM, compounds which are now available.

If you were to examine him by X-ray or the microscope, an examination of his marrow, you would have to regard him as a normal child.

Now, we have told his parents, as we tell all such parents that every child with so-called incurable cancer subjected to this kind of treatment, that all the results are temporary until we learn more. If we do not have more effective compounds or if we do not find out the reasons for the resistance of the tumor, the eventual result will be the same as if we had done nothing; but in the meantime through this kind of work, as far as the parents are concerned, there are two kinds of conclusions that it leads to.

In the first place, there is much better care for these children and adults than ever before. Second, and I think it is extremely important for anyone with cancer, there is a feeling of optimism because the patient is not just abandoned, and as long as the patient is alive there is the feeling that the patient may be kept alive in time for the next discovery, which I think all of us have a right to expect.

Well, this gentlemen, is the story of chemotherapy, given very briefly. In conclusion, I want to say that a great deal of progress has been made in this field.

I think we are far enough along in a number of institutions to be able to leave the first stage of the process of developmental research. We are now in the field of actual application of these chemical compounds to human beings as part of their total care. At least, we have been able to define the problems that exist much more clearly, and we know what ought to be carried out.

Finally, may I support the recommendation of Mr. Adams? We do require funds for facilities. We require funds for research fellowships to train more people so that they can go all over the country with this training and with their brains and talent and to train other people themselves.

Finally, a most valuable stimulant any group doing the kind of work we are doing is the institutional grant. I think that there can be a rapidity of progress with that kind of support that can be given with no other restricted form of support, either Federal or private.

I have a statement on children's cancer.

Mr. FOGARTY. It may be put in the record.

(The statement referred to is as follows:)

FEDERAL FUNDS, THE JIMMY FUND AND THE CHILDREN'S CANCER RESEARCH FOUNDATION IN BOSTON

In 1947 the Children's Hospital in Boston was able to look back on many years of gratifying surgical success in the treatment of several forms of cancer in children and some degree of success in the treatment by irradiation of at least two forms of cancer in the young. In that year, their research program concerning the nature of cancer and means of effecting a cure in children with widespread cancer was assisted by a grant of $10,000 from the National Cancer Institute. This was the first outside support and was responsible for a broadening of the entire research program. This was followed by $20,000 a year for the next 4 years, or a total of $90,000 in 5 years.

In 1947 when the results of research in several unrelated fields permitted the discovery in our own laboratory program which led to the use of folic acid antagonists in the treatment of acute leukemia in children, our enlarged research organization supported by the National Cancer Institute grant was prepared to move rapidly. One part of our program concerned the administration to children with widespread cancer, including leukemia, of chemical compounds studied in the laboratory according to a definite policy and pattern before being applied to the patient. At that time the usual treatment for a child with acute leukemia was verification of the diagnosis, transfusion, and return of the child to its home with the expectation that death would occur within a matter of weeks to months. The results have been summarized elsewhere in this statement.

In the 5 years beginning January 1, 1947, almost 1,000 patients with incurable cancer have been treated by our group. At this writing there are 158 patients receiving chemotherapy as one part of their total care by our team. For three consecutive years, 1948 through 1951, some of the cost of the bed care brought on by this great increase in patients with incurable cancer was borne by the National Cancer Institute which provided $30,000 a year for research beds. Without this support, this work would not have been possible. In 1947 the results of research made possible by these Federal funds attracted the attention of the Variety Club of New England to the problems of cancer in children. Through them and the Boston Braves, the press, radio and television, and the motion-picture industry, there were gathered pennies, nickels, dimes, and quarters from children and their parents throughout New England, in the Jimmy Fund campaign, which created the Children's Cancer Research Foundation. Finally to meet the requirements of the large number of children with widespread cancer coming for treatment and care, and to house the greatly increased research program, a five-story building, the Jimmy Fund Building, large enough to care for 200 children with incurable cancer has been erected at a cost of $1,500,000, of which $100,000 came from the National Cancer Institute to pay for some of the expensive equipment in this new research institute.

Many factors were involved in the realization of this extraordinary achievement. It may be stated with objectivity that had it not been for the Federal support there would have been no research program to attract the sponsors of the Jimmy Fund. This institution, now able to do very much more work because of private support, has so accelerated its program that its results justify requests for further Federal support. These requests are now placed in fair competition with all other requests for the Federal funds now available.

This story is recorded in the belief that it represents a splendid example of the cooperative use of private and public funds in one field of public welfare.

Mr. ADAMS. Our next witness is Dr. Rhoads, director of the Memorial Cancer Center in New York City. He is the man whom we regard as the one individual who more than any other man in the country has been responsible for starting the interest of the public and the citizens generally toward doing something about this problem in the last 6 years.

Dr. Rhoads.

STATEMENT OF DR. CORNELIUS P. RHOADS

Dr. RHOADS. Mr. Chairman and gentlemen, there will be a certain amount of overlapping with the presentations that have been made before, in my attempt to show the advances in cancer control and cure. I have a statement which I will submit but I will attempt to cover in summary form those advances.

Mr. FOGARTY. Your statement will be placed in the record.

(The statement referred to is as follows:)

ADVANCES IN CANCER CONTROL AND CURE

There has been an important development during the last 4-year period of new procedures, formerly considered impractical because exceedingly hazardous, for the surgical removal of several types of cancer. The increase in laboratory tests as a factor in effective pre- and post-operative care is noteworthy.

In the past, the surgeon was chiefly concerned with the removal of the organ in which the cancer arose. It was assumed that if the cancer had extended much beyond its origin, it almost surely had scattered widely throughout the body and so was beyond surgical removal. It now appears that in perhaps 50 percent of cases of some types formerly considered inoperable, the cancer may have spread only to adjoining areas and there stopped temporarily. Hence operations now include tissues widely surrounding the cancer, in order to eliminate every possible spread of the disease. Such operations are extensive and complex but they are well tolerated by the patients and are restoring apparent health in some instances where this was rare before. The apparent cure rate for cancer of the bladder appears to have risen to 26 percent and for operable cancer of the stomach to 34.5 percent. Particularly in cancer of the uterus, definite progress seems to have been achieved in patients who formerly were considered untreatable. This new radical surgery is particularly important in certain forms of the disease which have become resistant to X-rays.

A further important trend is under way toward the early diagnosis and removal of tissues in which changes of a precancerous nature have occurred. Examples of such changes are the growths on the lining of the large intestine, known as polyps, which have been found to be more frequent than had been previously supposed and are precancerous in many instances. Similarly, early changes of the breast, stomach, uterus, and prostate gland are being studied in a major program to detect and eradicate, before they have broken through their natural boundaries, tissues likely to become uncontrollable cancer. It appears, furthermore, that as these conditions are becoming better understood, the operations employed to remove them can be safely limited in extent so that the least possible deformity results.

Increasing attention is being paid to the use of cancer-restraining drugs to augment the effect of X-rays, and one future trend or irradiation treatment may involve increasing the sensitivity of the cancer as compared to normal tissue. Methods for the more exact location of a cancer to be damaged by X-ray have been developed. The betatron, a radiation generator five times more powerful than any previously available, is now in use, with preliminary useful results.

Advances have been made in the temporary control of rare types of cancer by medical means. Only surgery or irradiation are now curative, but drugs capable of exerting temporary improvement are available today for certain particularly sensitive forms of cancer, notably Hodgkin's disease, acute leukemia in children, and lymphosarcoma. These drugs are of five types.

In evaluating progress in the use of radioactive isotopes in the treatment of cancer it appears that at the present time only two—Iodine 131 in thyroid cancer and phosphorus 32 in leukemia—are useful, and only under carefully controlled conditions.

Because of these ever-increasing cure rates, the research activities are being built around the restitution of the cancer patient as a productive, happy member of society. This has resulted in a larger, more complicated team which now requires psychiatrist, psychologist, recreational therapist, and administrator to function as actively and intimately with the patient as does the physician, surgeon, nurse, and social worker. And in the background are the chemists, biologists, physicists, and engineers. Care of the patient as a whole, not just the removal of his cancerous growth, is stressed.

The progress made in this period of intensive study justifies an even more ardent scientific effort, along definite lines, toward a definite end and, we believe, attainable goal; this is the elimination of cancer, our cruel but vulnerable disease antagonist.

There are two fields of research in cancer that may be defined. This is very broad, but one is the cure and control of cancer and the other field of research is for detecting and preventing cancer.

In the first area, the cure or control of cancer already established, there are two definite subdivisions. One is the removal by mechanical, that is surgical, or radiological means of a cancer which is still localized. The other is the control of cancer which is already widely scattered throughout the body, which heretofore was not susceptible to any kind of control.

There have been very great advances in regard to diagnosis, particularly to improvement of diagnosis of cancer cells in the fluids discharged. I will not deal with this subject in particular, but advances are being made. There are advances in earlier diagnosis and more effective treatment of cancer in areas heretofore not susceptible to treatment, advances permitting attack and removal and treatment.

In terms of cure, there have been in the last 2 years very substantial advances which are summarized here.

To cure cancer requires removal or destruction of all of the cancer cells. Regular cure of only localized cancer has been possible in the past and now by research some cancers which have begun to spread are curable.

Research tells us where specific types of cancer migrate. We can remove therefore at operation those tissues which are likely to harbor cancer cells traveling from the primary site, the site of origin.

Again, research is decreasing the surgical risks and because of these advances, we are able to undertake operations that heretofore were not possible, even 5 years ago.

Control of infection, new anesthetics, and the control of body chemistry of cancer patients are now being achieved. Longer and more extensive operations can now be performed and more cancer patients, even those who are severely debilitated, have the chance of surgical cure.

Now, if I can show you for illustration on this big chart which we have here, I will speak very briefly on the principal advances. The first depicts, here [indicating] the conventional operation for breast cancer which removed only the armpit lymph nodes.

Well, in the last 2 years, it has been learned that a cancer tends to expand from the armpits to the glands indicated here. The new operation also removes those glands at the same time; those glands can be removed in a block with a minimal opportunity for the scattering of the cancer cells. This new operation should substantially increase the number of cures.

In 16 of the first 27 patients, cancer cells were found in the nodes under the ribs. That means that under the new operation, these 16 patients, or a certain number of them, have a chance for a cure.

This new operation is indicated in the red area here [indicating]. This doubles or trebles the time of the operation and it means a doubling or trebling of the medical and nursing care involved and of the time of the personnel in the operating room.

Well, that is a costly matter and it is a matter of experiment and research to do it correctly and rapidly.

Mr. HEDRICK. Those lymph glands do become involved?

Dr. RHOADS. Yes.

Mr. HEDRICK. There is no means of taking those out?

Dr. RHOADS. Yes; an operation has been developed so that it can be done as part of the radical operation. This is a surgery that we do in a practical way.

This next one here [indicating] shows a new operation for lung cancer which is based on research which has showed that microscopic deposits of lung cancer usually are present in lymph nodes near the windpipe. A removal of these nodes should prevent cancer spread.

Now, the cure rate for that condition is about 4 percent, the reason being that the cancer extends quickly from the lung into the glands alongside the windpipe and that is a difficult area to approach physically, but in six hospitals it is now being done, and they remove not only the lungs but the involved tissue alongside the windpipe and large blood vessels.

Once more, there is a practical advance and this very precise procedure seems likely to lift this very low rate of cure substantially, from the evidence already on hand.

In 18 out of the first 39 patients, cancer cells were found in nodes along the windpipe.

Coming to this part here [indicating on chart], it is now clear from research that of the women that die with cancer of the womb, research has showed that in "hopelessly" advanced cases of cancer of the womb, 50 percent roughly of the women that died with cancer, died with that cancer still confined to the pelvic organs which can now be removed safely. They die very miserably. Communications develop between the rectum and the vagina and the bladder and they become extremely objectionable to themselves and those associated with them, but operations have been developed by which the entire part affected has been removed with reasonable safety and a substantial number of these women heretofore incurable can be returned to life to accomplish a productive existence, they may be cured, not all of them but a substantial number.

Now, that has been accomplished not only by research as to the location of the cancer but also by better knowledge of how to control the complications involved in the operation.

A serious complication, happily not so any more, was known before and faced surgeons previously, and that is where hemorrhage is encountered in operations for cancer of the lungs and the prostate gland.

Research has shown that an abnormal blood component known as plasmin is the cause of uncontrollable hemmorrhage in some cancer patients. That has been defined and a chemical has been developed to block its action.

That is, we have learned from research that the tissues contain a substance which is in the circulation at the time of the operation which dissolves a clot and the blood keeps flowing and prevents the operation and a substance has been prepared which controls that phenomenon in animals and in man.

Then, here [indicating] second from the bottom, we show that a new procedure has been developed and it is beginning to be used under which the blood pressure of the patient is lowered by a drug, by hpyotensive anesthesia, to a level which almost eliminates and hemorrhage

in the operative field. It decreases the bleeding and leaves the operative field clearer for the surgeon, so that he can continue his operation.

In the old days, for instance, during a breast operation, we had the situation shown on the left [indicating] where you see a mass of blood making a precise dissection of the cancer very difficult and requiring blood transfusions for the patient.

With this new technique which is shown here [indicating] on the right, transfusions are kept down to a minimum and the surgeon has a beautiful, clear and broad field of vision, permitting the complete removal of the primary cancer and the involved lymph nodes.

Finally, on the bottom line here [indicating], we are now developing extensive knowledge of the chemical changes during the operation which jeopardize the safety of the patient following the operation and, by these processes, chemical measures, we can study the patient before the operation and we can correct the abnormal situation and we can maintain normality during and after the operation and as a consequence the patient survives where he would not have survived 2 years ago. Reading it from here, we say that research has shown that cancer patients often come to operation with abnormalities in the volume and chemistry of their blood. Once defined, these can be corrected and surgical risk reduced.

Now, I will move back to the second general area, shown on this next chart.

We believe that in our efforts to control scattered cancers heretofore not controllable, six very important leads have been developed. Research is finding chemical agents which, when administered internally, will track down and destroy widespread cancer cells.

The first one was referred to by Dr. Jacobsen particularly, and it is a chemical that has come down to us from war work, from the knowledge that a war gives us, and it is nitrogen mustard and it is effective in temporarily controlling those forms of cancer in blood-forming tissues and it is also effective in controlling certain forms of lung cancer.

These are chemical cell poisons, nitrogen mustard and TEM, and they are now used in Hodgkins' disease, chronic leukemias and some lung cancers.

Manufacture of these is undertaken in a large number of pharmaceutical houses and there is a program for the artificial preparation of these compounds and allied compounds. As a matter of fact, they are not curative compounds but they are extremely useful in providing period of well-being.

TEM is particularly interesting because it can be given as a pill in the doctor's office to walking patients. It is a toxic compound and must be used with care.

Had anyone talked about a cancer pill 5 years ago he would have been deemed a crackpot, but it exists today.

Now, under 2 here [indicating], we have the chemical antagonists, such as the antifolics that have been referred to by Dr. Farber. These antifolics by blocking the cancer cell's need for a certain nutritional element, temporarily interfere with cancer growth.

That has been brought out by research. Of course, both normal and cancerous cells have a need for certain nutritional elements and that has been evolved by precise analysis of the normal and cancerous cells and it has been established that a cancer cell requires more of a regular

supply of a certain element or elements than the normal cell which normally can be modified, and that is the principle of all of these chemical antagonists.

Not less than 100 groups both in the universities and the pharmaceutical houses are now engaged in the synthetic production or synthetic programs to provide supplies of these chemical antagonists and they are being tested in a number of laboratories upon animals and it has been shown that they restrict the growth of cancer cells; and there is a possibility it may be shown that they may restrict that growth entirely so as to cure it entirely. We need research. Insofar as these compounds, a number of them are useful in animals and a few in man.

Now we come to No. 3 [indicating]. These are radioactive chemicals which explode within the cancer cells and destroy them and Dr. Jacobsen has dealt with that matter, of the use of radioactive iodine and radioactive phosphorus and radioactive arsenic.

These are in general used today to give very substantial palliation and relief of symptoms.

Under 4 [indicating], there is an extensive program on the preparation of those chemicals known as steroid hormones which have a relationship to the growth of the cancer cell, and there are several and certain new ones are coming to hand which we hope will be very useful in palliating the rate of growth of cancer. These are not curative but they again provide a real advance.

Under 5 [indicating], we see that viruses are under research. Viruses are living agents which seek out and destroy specific types of cells.

Certain viruses have been developed which have the ability in certain animals to seek out and destroy those cancer cells. Certain of these very rare viruses do not cause symptoms in man but experimentally in animals; in certain cases they have been used for treatment of human beings. It is too early to have any idea of the effect, except to say that substantial destruction of cancer cells can be achieved in man.

Finally, there are certain antibiotics. Those are materials which are made by the growth of certain things, such as molds. Penicillin is an antibiotic; that has been extensively studied and there are certain others. It is found that they will injure cancer cells just as penicillin injures bacterial cells, in comparison with normal cells.

Now, all of these new methods of attacking cancer are the products of just 5 years' research. They prolong lives and they relieve pain in today's inoperable cancer patients, and they offer the hope for cure to the patients of tomorrow.

And now I can show you on this other chart here actual examples of what has been done, the developments that we have achieved.

The top one shows a patient with Hodgkins' disease, treated with TEM. TEM was discovered in 1949. Two new and possibly more effective cell poisons are on trial and under research today.

These are new compounds which are presently in use. You see the patient on the left before treatment with the cancer growing very rapidly. And you see the patient on the right, after treatment. Now, these have not cured him, but they are very important agents.

Under 2 [indicating] we have an example of what Dr. Farber referred to and showed you, the effect of antifolics. A leukemic

child's life may be prolonged for 1 or 2 years; perhaps long enough for something better to be found.

No. 3 is an example of treatment with radioactive iodine. You see this patient with cancer of the thyroid who has been treated with radioactive iodine. You can see the effect. You can see the thyroid cancer here in January 1948 and the disappearance in June 1951.

Now, the treatment of cancer of the thyroid, at least in our hands, by radioactive iodine is a very complicated matter. It is effective because this type of cancer is very avid for iodine and so it is capable of taking up sufficient to destroy it; that is difficult to direct, but it can be directed and it has been done in various institutions. Research has found ways to make this type of cancer concentrate radioactive material.

In 4 [indicating] we have an advanced breast cancer treated with male sex hormone. Many chemical analogues of these materials have been produced. They are materials from the adrenal and sex glands which have been prepared synthetically and which are under trial. From the score now, it looks as though about 80 percent would be subject to very substantial improvement in breast cancer. Again, it is not curative, but it seems to provide new hope, more so than any other compound heretofore studied for this condition.

Under 5 [indicating] we see the destruction by virus of a cancer cell growing in a test tube. Preliminary trial in man indicates that some types of human cancer may be restrained by virus infection. Here you see an example of this destruction. This picture was made by an electronic microscope and you see the virus particles here [indicating], and here you see the debris of the cancer cell which has been destroyed by the growth of the virus. This virus can be used in man and it will destroy certain types of cancer, not all of them. We are very hopeful as to the ability of some of these viruses in human cancer-cell destruction.

We come now to No. 5 [indicating]. This is in the antibiotic field. This shows a mouse cancer destroyed by a new antibiotic which is now being purified for clinical trial.

Literally thousands of trials of antibiotics have been made against tumors in animals, and some in man. There seems to be certain ones which can be cured among the cancers in animals. We do not know their therapeutic value, what it is going to be on man, but on the animal the experience has been that they seem to represent a greater spread between the therapeutic effect and the toxic effect than has been the case of compounds previously used in experimental animals.

They have gone into human beings, but the supplies are very limited, and we are not prepared to make any statement.

We do feel, however, that these examples, simple as they seem, do represent an advance that could not have been made without a major program of research and it should be implemented with a continuation of this program on a very substantial scale indeed.

GENERAL DISCUSSION RE CANCER

Mr. FOGARTY. Thank you, doctor. Are there any questions?

Mr. HEDRICK. Doctor, do you believe that hormones are a cause of cancer?

Dr. RHOADS. I am sorry to say that I omitted that at the tail end of the discussion; I meant to cover that.

In the whole matter of research for the cause of cancer and the possible prevention of cancer, although we have no definite knowledge, there is a great deal of evidence to indicate that some abnormalities in hormone production by the body are associated with the production of cancer.

We have had no means actually to learn the details of hormone manufacture by the body. We have worked now for almost 9 years in a number of laboratories to develop these methods that are beginning to bring in some knowledge, but they are expensive and difficult, but presently it is possible to apply methods to human beings with cancer and to demonstrate certain abnormalities, and application of these methods has been made to patients with incipient cancers. There is an indication that there is abnormality in these patients.

There is reason to believe that with further work on a substantial scale we can define the nature of those abnormalities, and that is our ultimate hope.

Mr. HEDRICK. Do you believe that face creams containing hormones is safe to use?

Dr. RHOADS. Dr. Hedrick, from the best evidence we have, the dose of the hormone in the face cream is not cancer-productive. In the experimental production of cancer in animals we need very heavy doses; but there were some errors in hormone manufacture which produced some abnormalities which can be utilized for production of cancer by means which have been used.

Mr. HEDRICK. Thank you very much.

Mr. MCGRATH. Off the record.

(Discussion off the record.)

Mr. FOGARTY. Doctor, for the record, will you repeat the advances that have been made, if any, in the treatment of cancer of the liver and the intestines?

Dr. RHOADS. It is possible at this time to transplant human cancer to experimental animals under certain specific conditions and these cancers will grow in the animal quite well. The animal then can be inoculated with one of these viruses and the virus will go to the cancer and be absorbed.

It can also destroy cancer in the intestines of the large bowel. That is very early experimentation.

Out of the five first trials of virus inoculations, there have been effected very substantial destruction of cancer in the large bowel in patients, having it to an advanced degree, that is, cancer of the large bowel which had invaded the liver.

Now, speaking of cancer of the liver, I think you meant cancer deposited in the liver from the large bowels, and we have indications that it will have a substantial effect on the cancer of the large bowel. the cancer which has been deposited in the liver.

We do not believe it is a curative method today, but we have reason to hope that there may be curative methods through experimentation in animals.

Mr. HEDRICK. Doctor, do you believe that constipation tends toward cancer?

Dr. RHOADS. My clinical friends do feel that way; whether they can be supported, I do not know. There is a strong feeling on the part of

some who have seen hundreds of patients with cancer of the large intestines, that abnormal bowel habits do precede development of cancer. There are a great many physicians dealing with cases of cancer of the large bowel who do feel that cancer is preceded by a long history of abnormal intestinal function, oftentimes associated with constipation.

I am not certain that this could be documented statistically. My colleagues may have better data on that than I.

Now, much new information has been developed on the changes in the large bowel which precede cancer. These changes can be picked up in the routine health examinations and in the abnormal tissues removed, without the need for a mutilating operation.

Mr. DENTON. Has research developed any reason why one cell will be normal and another will be cancerous?

Dr. RHOADS. The change of the cells from normality to abnormality is one of the commonest phenomena of nature. If you take the bacterial cell, you will find that it grows out many millions of cells and there is a predictable rate of abnormal cells that will be found, a certain number of them will be abnormal as compared to their parents and brothers and sisters.

Now, the principle that we are all working on here is that the minute a cell changes in any fashion and gives rise to a changed family of offspring, so to speak, its requirements for certain nutritional substances differ, and if you can define that abnormal requirement—and we are devising methods for doing exactly this, we can demonstrate that each type of cell differs in the diet that it has to eat, and so we can kill abnormal forms without hurting the normal forms. It can be done with bacteria, and it can be done with protozoa and it can be done with cancer cells. Do I make it clear?

Mr. DENTON. Well, yes. Now, if you get a cancer cell, does it spread to other cells?

Dr. RHOADS. The cell changes and then it starts a whole new family with the same abnormal characteristics of its parents.

Mr. DENTON. Is it contagious in any way?

Dr. RHOADS. We do not have any evidence that it is contagious.

Mr. FOGARTY. Is it hereditary?

Dr. RHOADS. There is no question at all but that if we were pure-blood animals, which we are not—we cannot control mating habits of human beings—you could have families with a high incidence of cancer, because you can breed strains of animals with a high incidence of cancer.

That does not mean that you cannot prevent cancer in a family, it does not mean you cannot cure it, but you certainly can breed an inherent tendency to cancer if you have absolutely pure-blood animals, a pure strain.

One of our most interesting experiments was where in a strain of animals of pure breed, we get cancer of the adrenal gland. If an abnormality is set up early in life in that strain of animals by castration, you could prevent that cancer from occurring in every instance, if there is applied to the animal one of those pure hormones that we talked about on that chart.

So, here is an inherited tendency that can be overcome by artificial means. So, even though there was a strong inherent tendency in

man, that does not necessarily mean it cannot be controlled. For instance, anemia is a hereditary disease; we can control it.

Mr. SCHWABE. Doctor, I am wondering if you will tell us, please, whether or not you men are doing this work independently of the National Cancer Institute of the Public Health Service.

Dr. RHOADS. No—you mean, in terms of information?

Mr. SCHWABE. In the sense of your experimental and research work. Are you conducting independent research and experimental work in your fields, without coming to the Cancer Institute here for assistance financially or otherwise?

Dr. RHOADS. We would fold up without the assistance of the National Cancer Institute.

Mr. SCHWABE. All right. Then, what contribution, if any do you make to the Cancer Institute? Let us put it the other way.

Dr. RHOADS. Well, I am down here today.

Mr. SCHWABE. I know you are here asking for additional appropriations today; but I mean your practical operations.

Dr. RHOADS. Well, sir, in the first place, we are training now many of the men who will go to the new clinical centers. We always have a large number of men from the National Cancer Institute in training at our institution. We provide all the information from our studies to those working at the National Cancer Institute who come to visit us, and they do come very frequently.

Also, our people visit them very frequently.

In this study of resistance which Dr. Farber mentioned of leukemic cells, our group and the group in the National Cancer Institute have exchanged experimental animals just as though they were both in the same laboratory.

Mr. SCHWABE. And the results?

Dr. RHOADS. And the results, yes, sir.

Dr. JACOBSEN. I would like to say a word about that, too, if I may.

Mr. SCHWABE. That is all right. I want the information from anybody.

Dr. JACOBSEN. I might say that we have had a collaborative program with the National Cancer Institute since 1943. We have had that direct collaborative program with them since 1943 and it is still continuing.

I might say that there are several reasons for this. One is that the talents differ from one place to another. For example, I will go to see Dr. So-and-so because he knows something more about something than I do. That is one reason why we like to exchange information.

There are other reasons. Someone may have facilities that I do not have and therefore he can do a part of an experiement which I think should be done, but which I cannot do unless I can get somebody else to help me with it.

Mr. SCHWABE. To complete it.

Dr. JACOBSEN. That is right, to finish it. So, there is collaboration between the National Cancer Institute and all the institutions doing this research. Well, not all institutions doing research, but frankly, a great many of them; it is very close. There is not a duplication except where duplication is necessary by actually participating in a program, a part of a program.

Mr. SCHWABE. Well, naturally, there has to be a lot of duplication at best.

Dr. JACOBSEN. Yes.

Mr. SCHWABE. Especially in the elemental stages. That is to be expected and no one is to be criticized for that, as I see it.

Dr. JACOBSEN. Well, I think that the cooperation is very good, but I do think that something more could be done by way of cooperation.

Mr. SCHWABE. I do, too.

Dr. JACOBSEN. We were discussing that this morning before we came down here. You might ask me, "Well, why don't you do it?" Well, there are several reasons. Well, let us take funds—it takes money.

Mr. SCHWABE. Yes; money is essential.

Dr. JACOBSEN. It certainly is essential. Most of us cannot afford to take the money out of our own pockets for a conference of six or eight people, which is sometimes the most effective way of getting at these things. But I would say that the evidence is that the cooperation is very good, but it certainly could be improved.

Mr. SCHWABE. I have in mind that there are a number of cancer hospitals and cancer institutions scattered throughout the country, from State to State, some of them being supported by the States, and some by charitable organizations or other means.

Now, I am just wondering whether you folks collaborate much with these or not, or whether there is a little aloofness there somewhere that causes a slow-down of this program on research.

I think this committee ought to know that, if it exists, and perhaps we ought to get busy and see if we cannot help you folks and the other fellows out all over the country that are in this field. That is my theory; and I wanted to know the facts about it.

Dr. JACOBSEN. I imagine that Dr. Cameron and Dr. Rhoads could perhaps better speak to that.

Mr. SCHWABE. Well, whoever wants to answer it.

Mr. ADAMS. I think that Dr. Cameron probably, as medical director of the American Cancer Society, can do that. He visits more institutions and addresses and attends more meetings and sees more of them than anyone. He is not a research man himself. He is the head of our scientific staff, but he sees all of these people and I think he could give you the best answer.

Dr. CAMERON. I think that most of the people who are in research have recognized the need for the kind of thing you feel should be the pattern of research progress in this country.

There has been in existence for some years a committee known as the Gastric Cancer Committee, which has been supported by the National Cancer Institute. That is a group of clinicians and investigators who are interested particularly in the problem of cancer of the stomach. They meet at fairly regular intervals, and as it is a relatively small group they can meet informally.

There is another group concerned primarily with the steroid hormones which Dr. Rhoads has discussed and they meet informally once a year; they go off into the woods of Canada or New Hampshire and they meet for 3 or 4 days each fall. There are only about 100 in that group.

We have felt the need to bring together similar groups in all the fields related to cancer. Our first approach to this was in Memphis in 1949 when we held the first National Cancer Conference. The group was there divided into 8 or 10 sections, according to their interests. They sat around a table like this and talked about things in a way that could not be achieved in a large meeting and it was very productive.

We are having our second national conference, with the American Cancer Society, the National Cancer Institute and the American Association for Cancer Research cooperating, in Cincinnati from March 3 to 5.

Now, we hope that out of that, which consists of 14 sections covering most of the spectrum of cancer research, among this group of highly expert and specialized and experienced individuals who will meet there, there will be formed working committees who can meet at more frequent intervals.

Mr. SCHWABE. Apparently you are doing the thing that I thought ought to be done, whether it is done to any considerable extent or not is another matter.

Mr. Chairman, off the record.

(Discussion off the record.)

Mr. FOGARTY. Dr. Cameron, do you have a statement?

STATEMENT OF DR. CHARLES S. CAMERON

Dr. CAMERON. Mr. Chairman, in view of your statement at the outset, I would like to respect the wishes of the committee. Perhaps I could incur your good will and favor best by simply submitting my statement and saying no more.

Mr. FOGARTY. Thank you.

(The statement referred to follows:)

INVESTIGATIONS OF CANCER CURE CLAIMS

Nowhere in the United States can a man walk into a drug store and buy a sixteenth of a grain of morphine. That is against the law; and yet it is perfectly permissible for anyone with cancer to put himself in the hands of unscrupulous or misguided individuals who, although licensed to treat the sick by one method or another, offer perfectly worthless nostrums. Indeed the pastes, powders, and concoctions of these modernized mumbo-jumbo artists are more than worthless—they are lethal, for in electing them over bona fide treatment methods, the unwary or ignorant patient loses what was a respectable chance of being cured. No one knows how many lives are lost yearly as the result of such unscientific and dishonest cancer treatment, but in view of the known number of operators of phony cancer cures, and the volume of their trade, the number may be estimated conservatively at upward of 10,000. It is astonishing that in these days which are generally regarded as enlightened and pervaded by the spirit of science, the acetylene lights of the medicine men still display their sorry cures. There is one way and only one of controlling them, and that is to prove their worthlessness beyond a doubt. This is not easy to do, particularly in the case of alleged cancer cures. It is a task to be undertaken only by competent and experienced physicians and scientists who not only know all there is to know about cancer, but who are thoroughly familiar with the methodology of scientific proof. At the same time, they must be unbiased as all good scientists are.

A body of such authorities has been established through the efforts of the National Cancer Institute, the American Cancer Society, the American Medical Association, the Pure Food and Drug Administration, and others. It is actually a subcommittee of the National Research Council of the National Academy of

Sciences. Following a period of organization and definition of policy, it is now prepared to undertake the analysis and evaluation of such cancer-cure claims as are presented to it by its sponsoring agencies. But it is clear that a select committee such as this, numbering eight, and consisting of members having other heavy responsibilities, cannot stand up to this problem unassisted. The present staff must be augmented, there must be provision for the temporary or part-time services of appropriate technical and professional (specialist) experts, and, there must be a source of funds wherewith to provide grants to clinics and institutions who will cooperate from time to time in the evaluation projects.

The effectiveness of the work of this subcommittee will be determined directly by its resources; and if the Congress, with its responsibilities for the welfare of the citizens it represents, is concerned to take forthright steps to effectively limit their exposure to cancer treatment of no or questionable value, I urge that it make those resources available.

GRANTS TO STATES FOR PROGRAMS OF CANCER CONTROL

There is no disease of comparable magnitude in terms of mortality, long-term invalidism, economic loss, and social burden, so susceptible of immediate and substantial relief as cancer is. The purpose of the program of cancer control as conducted by governmental and voluntary agencies is to achieve this potential of relief through (1) universal application of the methods of education, lay and professional, whereby early diagnosis will become the rule rather than the exception, and (2) improvement of professional services to cancer patients whereby adequate treatment will be made readily available to all.

Six years ago, at the inception of the National Cancer Institute's program of grants-in-aid to States, there were but six State health departments engaged in major cancer-control activities; elsewhere the voluntary agency (the American Cancer Society) was bearing the burden virtually alone. The State grant-in-aid program has, during these 6 years, succeeded in bringing one State health department after another into the vanguard of cancer control, so that today some kind of effort is being made by all of them, and in most of them the effort is comprehensive. Another way of viewing the accomplishment of this program is to point out that on the basis of the matching formula, whereby each Federal dollar is joined by $2 of the State, the National Cancer Institute's $3,100,000 has actually purchased $9,300,000 worth of cancer control.

I submit a summary of States cancer control activities for the 1952 fiscal year as contained in program plans submitted to the National Cancer Institute Cancer Control Branch. Probably the most important phase of each cancer-control program is the manner in which it is organized and correlated with other participating groups outside of the State and local health departments. The records show that 36 States described having some form of coordinating or advisory cancer committee. Five of these are either appointed or approved by the governor of the State. In 13 States, the State medical society or the cancer committee of the medical society serves as a coordinating or advisory committee to the State health department. Eleven States have representatives from the State medical society, the State division of the American Cancer Society at the State health department as members of the cancer advisory committee. The manner in which these committees are used in formulating, organizing, and supervising the activities of the State control program is so variable that they cannot be properly summarized.

The remaining States have no uniformity insofar as representative advisory groups are concerned. The most important phase of the program insofar as the State health department programs are concerned is the availability of administrative personnel to conduct the cancer control program. Eight States and one Territory have a full-time medical cancer-control director (California, Connecticut, Iowa, New Jersey, New York, Pennsylvania, Texas, Virginia, Puerto Rico). Thirty-five have directors responsible for 2 to 8 programs, in addition to cancer control. Of this group, 3 positions are vacant and 4 have part-time directors. Two States have not designated anyone specifically responsible for cancer control activities. Only 11 States have nurses specifically assigned to cancer control activities. These States have a total of 14¾ nurses. Six and one-fourth social workers are employed in seven of the States. Six States employ 11½ laboratory technicians. Three States employ five X-ray technicians. Seven States have statisticians responsible for cancer control activities. Five States employ five heath educators. One State employs two engineers in the cancer control program.

Morbidity.—A total of 34 States have indicated that they have some form of morbidity program. Twenty-two of these list this as a maximum effort activity. In three States this activity is in a division other than cancer control.

Mortality.—Thirty-five States say they have a mortality register program; nineteen of these lists this as a major activity. In five States the program is in a division other than cancer control.

Tumor registers.—Twenty-nine States list a tumor register program. It is believed that this does not represent the true status of this program but a misinterpretation on the part of the State health department.

Education.—In the field of education, 49 States indicate that they conduct some form of lay educational program for adults. This program is given maximum effort by health departments in 7 States, medium effort in 26 and minimum attention in 16. A division other than cancer control conducts the program in 15 States, the division of health education in 11 of these. Thirty-eight States report an educational program for public schools. None of the States give this program maximum attention. This activity is also conducted by a division other than cancer control in 11 of the States. Thirteen States list no program for schools.

Professional education.—All 52 States and Territories participate in some form of professional education for physicians. Twenty-four lists this as a maximum activity, 19 as a medium and 9 as minimum. In five States the program is conducted by a division other than cancer control. Forty-nine States conduct an educational program for dentists. In 5 States it is a major activity, in 15 medium and 30 minimum. Fifty States claim an educational program for nurses. In 5 States a major activity, 16 medium, 20 minimum. Three States have no program for nurses. Nineteen States list an educational program for pharmacists.

Bedside care.—There is a bedside nursing care program in 20 States. This program is provided on a demonstration basis in practically all of these States.

Follow-up activities.—Follow-up services are provided by 38 State or local health departments. This is a maximum effort in only 11, medium in 13 and minimum in 23.

Medical consultation service.—Medical consultation services are available in 26 States, social service in 22. Medical consultation service is given maximum attention in only one State.

Cooperation with State or voluntary agencies.—All of the 52 States indicate that they cooperate with voluntary agencies. In 26 States it is listed as a major activity.

Microscopic tissue examination.—There is a tissue diagnostic program in 34 States, listed as a major activity in 14, medium in 7, minimum in 13.

Cytologic test service.—Cytological test services are listed in 27 States, a major activity in 6.

Cancer detection.—Twenty State health departments participate in a cancer detection program, listed as a major activity in 8 States.

Cancer diagnostic clinics.—Thirty-four States participate in a cancer diagnostic clinic program, listed as a maximum activity in 17.

Cancer clinics.—Twenty-eight States participate in a cancer clinic program, a major activity in 16.

Cancer hospitals.—Cancer hospitals are operated in six States (Massachusetts, Mississippi, New York, Texas, Vermont, and Puerto Rico).

Diagnosis and treatment.—A service for diagnosis and treatment of cancer patients in general hospitals is provided in 25 States, 14 of these listed as a major activity.

Palliative care.—Palliative care in hospitals, nursing homes, etc., is provided by 16 State health departments, listed as a major activity in only one.

Practically all of these activities are directly related to the State cancer grant-in-aid program which has been in operation since 1946.

MEDICAL AND DENTAL SCHOOL CANCER TEACHING PROGRAM

In the United States, modern medical science has all but eliminated deaths from a variety of diseases which so recently as 30 years ago were widespread causes of death. Tuberculosis, at the turn of the century taking more lives than any other disease and called the white plague, is now in eighth place in mortality records. Pneumonia, taking the life of one in every 3 or 4 it affected, and called "captain of the men of death" so recently as 15 years ago, has now a mortality of about 8 percent. Typhoid fever, not long ago frequently encountered in medi-

cal practice, is now a disgrace in any community. Infectious disease of childhood and nutritional deficiency diseases are now rarely seen on death certificates. Until 20 years ago pernicious anemia and diabetes led inexorably to an early grave, but today their victims can look forward to a normal span of years. These accomplishments are not an unmixed blessing, however, for by increasing the longevity of our people—the life expectancy for men is now 67 years and for women, 70 years—we have created new health problems: disease of the heart—vascular system and cancer have emerged as the foremost causes of death. Thus the pattern of disease has changed almost in a generation. One important effect of this change has been the need to reexamine the curriculum of medical-school teaching and to adjust it accordingly, putting the new first things first.

Cancer's position today as the second cause of death among our people would logically accord it a position of greater importance in the teaching plan, and, in an effort to facilitate its reorientation, the National Cancer Institute in 1947 offered each accredited medical school a teaching grant of $25,000, and each dental school a grant of $5,000. During the current year, all of the country's 79 approved schools of medicine are availing themselves of this assistance, as are 39 of the 42 dental schools. These grants have had two effects already discernable: (1) In general, greater emphasis is being placed upon cancer in both the laboratory and clinical departments of medical instruction and (2) the presentation of this excessively complex and varied subject is being integrated into an intelligible whole, as compared to the former piecemeal fragmented approach. While uniformity of cancer teaching programs in the many medical schools is not sought, still there is noted today an approach to agreement on certain elemental principles of teaching. Group study of methodology is the purpose of an informal organization of the coordinators of cancer teaching who now meet together regularly.

It is unnecessary to remark that the present annual crop of medical and dental school graduates are better prepared to effectively engage cancer in their careers of practice than their predecessors were, a fact for which their patients can be thankful and for which the Congress can be proud. Continuation of these grants, certainly during the present phase of adjustment, is recommended.

CLINICAL TRAINEESHIPS

The modern methods of treating cancer successfully require high orders of knowledge, experience, and enterprise. Doctor Rhoads has described, as only he can, the heroic proportions of present day surgery. The ability to perform surgery of the magnitude necessary to extirpate many cancers is not acquired in a year or two, but only after rigorous training of 4 and 5 years. The technique of treating cancer radiologically cannot be learned in 2 years as the limited modalities of 10 years ago were; the safe use of X-rays generated at 1 and 2 million volts, the proper control of high energy beams of the betatron and the cyclosynchrotron, the effective employment of a variety of radioactive isotopes—all these must now be embraced in the training of young radiologists who are to treat cancer—and that training, again, is long and exacting. The shortage of pathologists in our country is acute—there are fewer than 2,000 certified by the American Board of Pathology—yet precise microscopic diagnosis of cancer is the keystone of everything we do about it.

The objective of the program of clinical traineeships offered by the National Cancer Institute is to increase the number of physicians qualified to suspect, diagnose, and treat cancer. The program has been in operation since 1938, and during these 13 years, 343 young men and women have had the advantage of study, observation, and clinical exercise related to cancer and the allied diseases, which they would not otherwise have had. At this moment 106 young physicians are in the course of hospital and clinic training, emphasizing cancer detection, diagnosis, and treatment; they are at work in 52 hospitals located in 20 States. May I emphasize this fact, that for these 106 opportunities there were 156 applicants. With the growing recognition of cancers' increasing importance as a medical problem, and recalling that if present rates of increase continue we shall be faced 50 years hence with nearly twice as many cancer patients as we have today; foresight commends reasonable expansion of the present training program.

GRANTS FOR SPECIAL CONTROL PROJECTS

The part of the National Cancer Institute's activity designated "Grants for special control projects" is a program of grants-in-aid which makes possible a large variety of endeavors which may best be described as developmental. The special control grants support direct efforts to establish new methods of controlling cancer and of improving, refining, and rendering more effective the already established method of control. They cover the fields of public education, professional education, diagnosis, treatment, statistical studies and environmental cancer research.

I offer the following examples of projects currently underway and supported by special control grants of the National Cancer Institute:

(1) Investigation of the incidence of cancer in the population of the Colorado Plateau. The residents of this region are employed largely in the mining and processing of ores which are radioactive.

(2) Analysis of the causes of death in Ohio in relation to employment. The objective here is to determine what if any cancer-causing hazards are presented in the rubber industry.

(3) The support of cancer-teaching programs in schools of public health, such as Harvard, Yale, and Michigan, in order to qualify health educators and public-health administrators in the special techniques of cancer control.

(4) The production of a series of motion-picture films for physicians, which illustrate the office-practice methods to be employed in arriving at the earliest possible diagnosis of cancer. Four of these have been produced to date, and because they represent a departure in film-teaching technique, giving attention only to those phases of cancer management which are of practical significance to the doctor who sees cancer first, they have achieved gratifying usefulness and distinction. In support of this statement, I submit the review of the most recent film in the series.

Uterine cancer: the problem of early diagnosis, which was prepared by the American Medical Association and published in its Journal dated, February 2, 1952:

"Uterine cancer: the problem of early diagnosis: 16-millimeter, color, sound, showing time 20 minutes. Sponsored by the American Cancer Society and the National Cancer Institute. Produced in 1951 by Audio Productions, Inc., New York. Procurable on purchase from the American Cancer Society, 47 Beaver Street, New York, or on loan from State cancer societies and State health departments.

"The incidence of cancer of various sites in the female genital tract (international classification) is given, with survival rates indicated for each. Symptomatology and aids in diagnosis are visually presented in animated drawings for each stage of cervical cancer, including stage 0. The role of cytology in early detection is stressed, its technique visually described, and diagnostic criteria illustrated. Dr. Papanicolaou sounds a note of caution in using the method in diagnosis, by indicating that a positive smear should be confirmed as a matter of routine by biopsy and tissue diagnosis. The Schiller test and methods of biopsy are included.

"The film calls attention to the importance of a complete physical examination, bimanual examination, visual inspection of the cervix, rectal examination, and aspiration of the cul de sac, together with this very simple method of securing cells from the cervical canal. Several case reports are shown to illustrate these points. It is presented entirely from the standpoint of early diagnosis of uterine malignancy. It does not include a discussion of treatment. The picture is well organized. The photography, animation, and narration are excellent, and the film is highly recommended for the general practitioner, the advanced medical student, and hospital staff meetings."

(5) Studies of the role of heredity and of the milk virus in the development of human cancer of the breast.

(6) Analysis of the effect of an intensive State-wide program (Iowa) of breast cancer control through examination of their own breasts by statistically

significant numbers of women and employing the National Cancer Institute-American Cancer Society film "Breast Self-Examination."

(7) Investigation of variations in the incidence of cancer among the ethnic groups of Hawaii.

The examples I have given represent one-tenth of the total number of projects now under way. The cost of this program is $986,123.00.

In consideration of the immediate and practical dividends likely to be derived from this program, its continuance undiminished is recommended. Accordingly, $1,000,000 for this purpose is the proposal of the American Cancer Society.

Mr. FOGARTY. Are there any questions? Dr. Farber, do you have anything else?

Dr. FARBER. I just want to thank you gentlemen for the privilege of enabling me to come here. This has been very illuminating to me, and I go away with much greater optimism than I came with.

Mr. FOGARTY. We are very happy to see you here today, Doctor. You are head of the Children's Hospital in Boston; is that not correct?

Dr. FARBER. The Children's Cancer Research Foundation.

Mr. FOGARTY. Is there any other such in this country?

Dr. FARBER. Children's work is being carried on in a good many places. This is a foundation devoted solely to the problem of cancer in children.

Mr. SCHWABE. Generally that is acute leukemia; is it not?

Dr. FARBER. All cancer; about one-third is acute leukemia.

Mr. FOGARTY. Dr. Jacobsen, do you have any further statement?

Dr. JACOBSEN. No. I think you might be interested, however, to know that beginning about September 1 the university puts its second hospital into operation for cancer research and clinical investigation of cancer.

There is the other one which has been in operation, I think, 2 years ago, now, or a year ago. One wing went into effect a year or two ago, and it is on chemicals, largely, the thing that has been discussed today by Dr. Rhoads and Dr. Farber. The one going into operation in the fall is directed toward radiation of radioactive materials, the use of radioactive materials for investigating the problem of cancer.

Mr. FOGARTY. If there are no further questions, on behalf of the committee I want to thank you men for taking the time to come down here and give us your advice and suggestions.

I only wish that every Member of the House could have had the opportunity of listening to you men, who are so well versed in your fields. I hope that they will take the opportunity of reading the printed record when it is available to them, because I think that, although they could not hear you, if they at least read the hearings, we will get a little better cooperation.

Mr. ADAMS. Would it help any, Mr. Chairman, if we prepared a stencil, a mimeograph, not too lengthy, a diagramatic story of the situation as we see it for the Members of Congress?

Do you think that would be useful at all?

Mr. FOGARTY. If you will prepare something like that, I will see that it is inserted in the Congressional Record, and perhaps I will make some remarks while inserting it in the Record so that it will be available to the Members of Congress.

Thank you very much, all of you.

WEDNESDAY, FEBRUARY 20, 1952.

MENTAL HEALTH ACTIVITIES

WITNESSES

CHARLES SCHLAIFER, COUNTY CHAIRMAN, NATIONAL MENTAL HEALTH COMMITTEE
EDWIN F. GILDEA, M. D., CHAIRMAN, SUBCOMMITTEE ON MENTAL HEALTH, MISSOURI ASSOCIATION FOR SOCIAL WELFARE
S. BERNARD WORTIS, M. D., HEAD OF THE DEPARTMENT OF PSYCHIATRY, NEW YORK UNIVERSITY MEDICAL SCHOOL
WILLIAM C. MENNINGER, M. D., MEMBER, NATIONAL MENTAL HEALTH COMMITTEE, GENERAL SECRETARY, MENNINGER FOUNDATION, TOPEKA, KANS.

Mr. FOGARTY. The committee will please come to order. Mr. Schlaifer, are you going to introduce witnesses as well as making a statement yourself?

Mr. SCHLAIFER. Yes, if the chairman please.

Mr. Chairman, first of all I would like to say that we are very appreciative of this opportunity of coming to you and presenting our feelings before this committee about this appropriation for National Institute of Mental Health.

We are very fortunate in having with us today a group of doctors who are, as you know, preeminent in this field.

Now, with your permission, I would like to make my statement.

Mr. FOGARTY. Go ahead.

Mr. SCHLAIFER. My name is Charles Schlaifer of New York. I am cochairman of the National Mental Health Committee; member, National Advisory Mental Health Council; founding member, National Association for Mental Health; member, board of governors, Menninger Foundation; president of the Charles Schlaifer Co., Inc., an advertising agency.

Another year has intervened since we were last before you to discuss the budget for the Institute of Mental Health. I would like to preface my statement by saying that I personally am well aware of the problems besetting this committee, the Congress of the United States and us, the people of the United States; and one of those problems simply stated is "How can we get enough money to properly defend our country and at the same time take care of all of the needs of our Government and our people without crippling the country with burdensome taxes?" At the same time, and this is part of my conditioning, I feel that the mere expenditure of large sums of money does not solve any problems but rather creates them and the idea of just spending money for the custodial care of the mentally ill is an anathema to me.

Now that is why our committee feels so grateful to you gentlemen and the Congress of the United States for having had the judgment, the foresight and the intelligence to have passed the Mental Health Act and to establish the National Institute of Mental Health. I think it is proper that those of us who are aware of what has been done and those of us who are concerned with this terrible plight that besets our fellow men should come before you not just to petition but to bring out what you have done and to thank you. You can point

with pride to the accomplishments of the National Institute of Mental Health created by an act of the Congress of the United States.

In the training of people to be skilled in the treatment of mental illness, the Congress has made an historic contribution. Over the past 5 years, our funds have trained more than 300 desperately needed psychiatrists, in addition to 1,400 psychiatric nurses, clinical psychologists and social workers. It is deeply stimulating to note that 93 percent of the people trained with this money have gone into public mental health work—a fitting tribute to the intent and purpose of the whole program. Equally important, a great number of these people are now qualified to teach their skills to an oncoming group of applicants. We have taken a significant step forward in tooling up the psychiatric teaching plant which must turn out a greatly increased number of psychiatric practitioners in the years to come.

Of great significance, too, are the funds you have appropriated to the medical schools to promote the teaching of psychiatry at the undergraduate level. Before this program got under way 3 years ago, a majority of medical schools in this country did not even have a full-time instructor in psychiatry. Today 8,500 to 9,000 doctors who have graduated into practice have had some training under this program, while 13,000 medical students now in school are being taught the fundamentals of psychiatry. The importance of this project cannot be exaggerated. With only 5,000 psychiatrists in active practice, the average family doctor must of necessity be the front-line fighter in the battle to prevent serious mental illness.

National Institute of Mental Health funds are also being used to finance 1- and 2-week seminars to train general practitioners, nurses, teachers, and religious and community leaders in the fundamentals of good mental health practice. Under this program, 18,000 people have already been trained in this vital work.

You have stimulated a burgeoning interest in the whole field of psychiatry. Eloquent testimony to this is the fact that the Mental Health Institute now receives twice as many training applications as it can fill with the limited money it received from the Congress. A few years ago, you would frequently hear the comment: "But where will you get the people for this work? They are not interested in going into it." Today, the young people are clamoring for entrance into this challenging field, and it is a crying shame we have to turn half of them down due to lack of funds.

In grants to the States for clinics and preventive mental health services, you have blazed a series of new pathways. In more than half of the States, Mental Health Institute funds made it possible to start a mental health program where none had existed before. You have brought about the creation of 100 new clinics and the expansion of several hundred existing clinics. Of those treated in these clinics, 75,000 were children whose whole future usefulness as citizens depends on proper guidance now.

Yours has not been a give-away program. On the contrary, 5 years ago, for every $2 the Federal Government appropriated for clinics and preventive mental health services, State and local governments appropriated $1. Last year, for every $2 of Federal Government money, State and local governments appropriated $5—nearly three times the money appropriated by the Congress. Furthermore,

25 mental-health clinics partially supported in the past few years by Federal money are now off the Federal payroll; they are now totally supported by State and local moneys. This is but one of a number of examples attesting to the soundness of the National Institute of Mental Health program: each year, its grant-in-aid dollars reap a larger return in State and local expenditure and that is our aim for the future.

This series of accomplishments, while they give a feeling of pride also give us pause to say and to think "Well, this we have done—What about the job that is not done?"

What about the hundreds of thousands of our fellow Americans, our friends, our neighbors who are incarcerated in mental hospitals? What are we doing for them?

What about the more than a billion dollars a year it costs?

What about the fact that in these precarious times we need every single man and woman, boy and girl to help in the common struggle to maintain democracy—to protect our democratic way of life?

What are we doing about the 2,500,000 men and women who were lost to us in World War II because of mental illness?

What are we going to do about the fact that each year custodial care alone has increased more than $50,000,000 over the year before?

This is the problem that besets us today. We know that 675,000 people are in the tax-supported mental hospitals. We know that this figure will increase, but we also know what has been accomplished and we also know what can be accomplished.

Let's just look at what research has done. It is a common fact today that admissions to mental hospitals for general paresis due to untreated syphilis are approaching the vanishing point, because medical research discovered penicillin as a cure for syphilis. The mental hospitals saved $40,000,000 in this classification in 1951, and they will continue to save this amount every year from now on. Now, it seems that that $40,000,000 saved on custodial care could well be invested in further research and training to reduce further the pointless costs of custodial care.

Another example is pellagra. In 1923, mental illness due to pellagra accounted for 8 percent of all mental hospital admissions in South Carolina. Other Southern States had similar experience. But since that time, South Carolina today seldom has one case of pellagra a year entering its mental hospitals, and even that is cured and sent home within a few days. This is due to one thing—research—the discovery of part of the vitamin B_1 complex called niacin.

Then there is the remarkable progress made with epilepsy. Research has developed drugs which control or partially control the seizures so that 80 percent of epileptics can now lead normal lives. They don't have to go to institutions. The State of Ohio recently closed down its institution for epileptics.

Twenty-five years ago, two-thirds of the cases of involutional melancholia were hopeless. Now, thanks to the development of shock-therapy through research, the situation is reversed, and two-thirds of these patients are discharged within a year of admission to the mental hospitals. Not only that, but any psychiatrist in private practice can

point to many patients he has been able to keep out of the hospitals because of these and other newly developed treatments.

Now I will add quickly, before any questions might be asked, that these accomplishments I have discussed are just a beginning.

Paresis, pellagra, epilepsy, an involutional melancholia are disorders which at their worst only account for a small percentage of hospital beds. The really big diseases in terms of cost and numbers are, first, schizophrenia, and second, cerebral arteriosclerosis (hardening of the arteries of the brain) with senility.

Knowing what research has accomplished already, we know that cures or controls can be developed for these disorders, too. Even if we had no encouragement to date, we Americans have always had the idea that we can accomplish anything once we set our hearts and minds to it.

I know this, that if I saw over a billion dollars being drained out of my business each year, and it was increasing year after year after year, I would have to find ways and means of eliminating that or face bankruptcy. Our Nation cannot afford any drain, financial or physical. Most of us in this country are struggling with all our hearts and all our minds, and you gentlemen of the Congress have the greatest burden, to find ways and means to make our country strong physically, morally, intellectually, emotionally, and economically so that we can withstand any enemy within or without.

We have posed the problem. We now pose the answer. It might sound foolish for me to say to you in the light of the budget as announced that we want you to appropriate $25,000,000 for the Institute of Mental Health this year. We know, however, that this is the amount that should be appropriated and can be spent intelligently. We feel that a 5-year program embracing this expenditure plus a definite and planned program over a 5-year period will break through barriers and will ultimately reach the goal that we are all seeking—an eradication, or, at least, a great reduction, of this terrible and expensive thing called mental illness. But, as I said before, we, too, are realists. We again present you with the problem for your decision. We know that you have faced up to it year after year with intelligence and understanding and insight. We only ask that you use that same understanding, that same intelligence, that same courage, that same insight in approaching that great problem this year.

In closing my remarks each time that I have appeared before this committee, I have stated, "I have confidence in the Congress of the United States and in you gentlemen." I repeat that statement today. Thank you.

Mr. FOGARTY. Thank you, Mr. Schlaifer. As you know, this is one field of medicine that has been sadly neglected over the years; is that not right? That is, it was not so long ago in this country that no attention was paid to these patients. In those days they would build a place out in the woods somewhere for these people; they had no real care; they were simply put there until they died.

I think that this committee has over the years, particularly the past 7 or 8 years, played its part in stimulating interest throughout the country by the granting of these funds of various institutions and States providing facilities for these patients.

I think that the money that we have appropriated is at the present time beginning to show results. Do you agree with that?

Mr. SCHLAIFER. Yes. That is why I stated in my statement that you gentlemen deserve a great deal of commendation and you can point with justifiable pride to what you have done.

Mr. FOGARTY. However, I do want to point out that it is difficult for us, when we get on the floor of the House, to convince some of the gentlemen in Congress that providing money for research in this field and allied fields of medicine is a wise thing to do. There are still some that are not convinced that it is needed and there are some that think of it as money being thrown down the rat hole, as some of them have termed it.

You have stated that some progress has been made because of the Federal funds being appropriated for research.

Mr. SCHLAIFER. That is correct.

Mr. FOGARTY. Now, as I said this morning, when we had some outstanding men in the cancer field here before the committee, it would make it much easier for us on the floor if every Member of Congress could have heard the testimony, as well as the testimony which we will get, undoubtedly, from the doctors that we have here this afternoon. Of course, that is impossible, and we can only hope that they will read the record of these hearings.

Now, are you going to introduce your witnesses?

Mr. SCHLAIFER. Yes. I would like next to call Dr. Gildea, because he has to leave.

Mr. FOGARTY. Have you a statement, Dr. Gildea?

STATEMENT OF DR. EDWIN FRANCIS GILDEA

Dr. GILDEA. I think that I will submit this material in the record.

Mr. FOGARTY. All right.

Dr. GILDEA. It contains a summary of what I was going to say to the committee and also some of the background material that we hope Congress is interested in.

Mr. FOGARTY. I hope they will read it.

(The material referred to is as follows:)

National Institute of Mental Health

Description	1952 current budget	1953 Budget Bureau estimate	1953 National Mental Health Committee proposal
GRANTS			
1. Grants to medical schools and other institutions and to individuals for research and training:			
(a) Research projects:			
Liquidation cash	0	$77,000	$77,000
Obligational cash	$1,440,000	1,585,000	[1] 3,423,000
(b) Research fellowships	256,000	250,000	350,000
(c) Expansion of teaching subjects relating to mental illness:			
Liquidation cash	600,000	0	0
Obligational cash	2,023,000	1,850,000	[2] 4,850,000
(d) Training fellowships	1,350,000	[3] 1,900,000	2,500,000
(e) Construction grants for research and training institutes connected with mental hospitals and medical schools	0	0	[4] 8,000,000
2. Grants to States for case-finding, diagnosis, and other preventive and control services	3,100,000	3,100,000	4,000,000
DIRECT OPERATIONS			
1. Research to be conducted directly by National Institute of Mental Health	800,000	1,305,000	2,000,000
2. Other direct operations:			
(a) Review and approval of research and training grants	125,000	123,000	200,000
(b) Training activities (demonstrations, and in-service training)	104,987	77,000	200,000
(c) Technical assistance to States (consultative service, review and approval of State budgets, demonstration clinic)	415,000	385,000	550,000
(d) Mental health in industry—manpower problems, including alcoholism	0	0	300,000
(e) Program direction and administration	305,000	320,000	350,000
Total	10,518,987	10,972,000	26,800,000
Liquidation cash	−600,000	−77,000	−77,000
Construction of research facilities	0	0	−8,000,000
Total obligational cash	9,918,987	10,895,000	18,723,000

[1] Includes special project grants of $750,000 in research and treatment of alcoholism, to attack absenteeism.
[2] Includes: $1,000,000 for undergraduate medical school grants to extend grants to all medical schools; $2,500,000 to continue on more adequate basis the present graduate training programs; $750,000 to inaugurate new programs such as rehabilitation, specialists, school social work, pastoral counseling; $500,000 for psychiatric aid training; and $100,000 for short-term training institutes.
[3] Includes: $1,250,000 for training stipends; $600,000 for undergraduate training; and $50,000 for short-term institutions.
[4] This sum of $8,000,000 for construction of research facilities is a modest one in view of the fact that the National Institute of Mental Health has a list of unfilled requests for construction grants from 17 institutions in 15 States totaling $13,989,260. Undoubtedly the figure would be even higher if all institutions interested in research in this field were to put in applications. (See exhibit K.)

EXHIBIT K

NATIONAL INSTITUTE OF MENTAL HEALTH

Requests for construction grants for research and training (as of Jan. 20, 1950)

Institution and State:	Amount
Langley Porter Clinic, California	$350,000
Pinel Foundation, Washington	2,000,000
University of Utah, Utah	500,000
University of Colorado, Colorado	750,000
Menninger Foundation, Kansas	856,000
Washington University, Missouri	1,000,000
University of Texas, Texas	500,000
Michael Reese Hospital, Illinois	1,000,000
University of Wisconsin Medical School Hospital, Wisconsin	950,000
University of Cincinnati, Ohio	2,000,000
Institute of Psychoanalysis, Illinois	500,000
University of Chicago, Illinois	500,000
University of Michigan, Michigan	800,000
University of Louisville, Kentucky	1,000,000
Temple University, Pennsylvania	750,000
University of Rochester, New York	233,260
Boston University, Massachusetts	300,000
Total (17 institutions in 15 States)	13,989,260

Backlog of applications approved by National Advisory Council but not granted due to lack of appropriation

Training grants and traineeships	$2,268,794
Research-project grants and fellowships	776,990

DOES MENTAL HEALTH RESEARCH PAY OFF?

(By Edwin Francis Gildea, M. D., St. Louis, Mo.)

It has been repeatedly demonstrated that expanded research results in increased knowledge and ultimate control of many diseases. Control of syphilis by penicillin, of pellagra by niacin, of diabetes by insulin, of epilepsy by newly developed drugs, and innumerable other examples may be cited.

Substantial funds are essential for an effective research program. Only paltry sums have been spent for research into mental illness by contrast with the magnitude of the disease. Lack of funds for research practically guarantees a continuing increase in mental patients.

Briefly, only 2 percent of all medical research is devoted to mental disorders which represent from 60 to 75 percent of our total health problem. The funds we are requesting from you hardly begin to close this gap, but a start must be made.

It is a well-known fact that half of the hospital beds in the United States are occupied by patients with mental illnesses. The number of these patients is increasing. The costs of maintenance alone for even poor custodial care amounted to more than $500 million in 1950. The continued increase in costs is proving an overwhelming burden to the States and cities. The existing institutions are 16 to 25 percent overcrowded. Conditions are so bad that patients are actually made worse.

Aside from euthanasia, there is no way of preventing this increase in mental diseases, except by training personnel to apply known treatments, and all-out research to discover new, quicker, better cures. If modern methods were adequately applied, we could prevent the increase in the patient population.

However, the real solution of the problem lies in research to discover causes and to improve methods of prevention and treatment.

In the past 20 years it has been repeatedly demonstrated in many fields that the frequency of discoveries in research is directly proportional to the amount of money expended. It used to be thought that the capacity for success in research resided only in a few gifted men. It was said that these geniuses would discover things when the time was ripe. It is now known that we do not have to wait on accident or fate to produce effective and fruitful research. While the specially

talented person is the ultimate source of major advances in research, there are thousands of young people who can be trained in the methods of research. They can then capitalize on the special inspiration of a few men.

It cannot be too strongly stated that less money has been allotted to research in mental diseases than any other important field of medicine or science. Hundreds of millions are spent for research in industry and physics and other sciences, while only 3 million was spent on research in mental diseases last year.

On the basis of studies made by the National Mental Health Committee, it is proposed that Congress appropriate $26 million for the coming year. This amount will just make possible the beginning of a training and research program.

There are many new tools and methods available for research in mental diseases. We know that measurable changes in electrical current take place with brain activity. The newer methods of physics and electronics should be applied here. Whenever there is an electrical change, there is an accompanying chemical change. Yet scarcely anyone is studying brain chemistry. Then there are the methods of anthropology, sociology, and psychology that have been applied only to a limited extent.

In summary, gentlemen, the horizons of research in mental disease are limitless—and hopeful. They embrace zoology, neurology, morphology, ecology, physiology, endocrinology, heredity, genetics, to mention only a few of the disciplines that should be applied to problems of mental disease. It is in your hands, gentlemen, to see that this basic need is not neglected.

The funds needed in order to develop training and research in psychiatry in my own community, St. Louis, amount to approximately $500,000 a year, in addition to what we now have to spend. We are desperately in need of money for new buildings for research laboratories, additional beds for patients under special study, and funds for out-patient and child-guidance clinics. Construction costs will amount to $2,500,000. Other medical centers need funds in similar or larger amounts in order to promote research in mental diseases on any adequate scale. Consequently the $26 million requested for the coming year would only support approximately seven training and research centers. (See appendix.)

Appendix I

Does Research in Mental Health Pay Off?

1. General paresis

The rate of first admissions of general paresis patients to New York State mental hospitals was cut in half from 1947 to 1951 as a result of the discovery and use of penicillin for the cure of syphillis. (General paresis is the end result of untreated syphillis.)

Penicillin was made available for general use in 1946. A recent survey reports that during the 3 years from 1947 to 1949, after penicillin was generally available in mental hospitals, there were in the hospitals 17,000 cases less of general paresis than there would have been without penicillin and that the saving to the State mental hospitals was $59,176,000.

The saving since 1949 has continued to increase. It is now estimated from 1947 through 1952 the saving will total $164,176,000. Furthermore, in 1952 and every year thereafter, taxpayers will save $40,000,000 as a result of this discovery through medical research of penicillin, which made possible the prevention and control of general paresis.

2. Epilepsy

According to Dr. Pearce Bailey, Director of the National Institute on Neurological Diseases and Blindness, neurological research has produced the electroencephalograph and demonstrated the essential nature of epilepsy as the disorder of energy and economy of brain cells which is controllable by chemical means. Drugs are injected to control the seizures. The result is that 80 percent of all epileptics can now lead normal lives. The need for epileptic institutions is decreasing. The State institution for epileptics at Gallipolis, Ohio, has been closed by executive order and other States are following suit.

It is necessary, of course, to train additional specialists to handle these cases in private practice and in clinics.

3. Pellagra

Patients in mental hospitals in the South with mental disease caused by pellagra are practically eliminated by the result of the discovery that niacin, or nicotinic acid of the vitamin B complex cures and prevents pellagra.

In 1923, for example, mental illness due to pellagra accounted for 8 percent of all the admissions in South Carolina. Today South Carolina seldom has one such case a year, and even when admitted, he is cured and discharged in a few days or weeks.

4. Involutional melancholia

Twenty-five years ago, involutional melancholia, an illness of the middle years, had no particular treatment and was hopeless in almost two-thirds of the cases. Today, thanks to the development through research of electro-shock therapy, the situation is exactly reversed, and two-thirds of such patients are discharged within a year of admission to the average mental hospital. In those few hospitals providing up-to-date, intensive treatment, these patients are usually nearly all discharged within 2 or 3 months.

5. The need for further research

These new discoveries, however, have been made with diseases which constitute only a small proportion of the mental hospital population. We need to discover cures for the three main diseases which bring patients to our mental hospitals and keep them there. These are schizophrenia, senility and hardening of the arteries of the brain, and alcoholism.

In addition, the cures and treatment methods available to medical science today do not offset the effects of the following factors which are causing the mental hospital population to increase steadily:

A. The increasing population of the Nation;

B. The increasing percentage of old people in our general population, who are more susceptible to mental illness;

C. The "hard core" of patients who remain in the mental hospital 5 years or more. Today 60 percent of the resident patients in our mental hospitals represent such a "hard core," which has been piling up for decades. In fact, 18 percent has been hospitalized for 20 years or more.

6. The main conditions which need research in order to relieve the mental hospitals

A. *Schizophrenia.*—Half of all mental hospital beds, about 350,000, are occupied by sufferers from this disease. One-fourth of all hospital beds in the United States on any one day are occupied by schizophrenics. It is the largest cause of first admissions to the mental hospitals.

Cost of hospital care, including construction, due to schizophrenia, rose to more than $350,000,000 in 1950, and has increased since. Research leads in this field are numerous, including leads in the field of the adrenal hormones, metabolism, and body chemistry and should be explored vigorously.

B. *Cerebral arteriosclerosis (hardening of the arteries of the brain and senility).*—Twenty-eight and two-tenths percent of first admissions and about 40 percent of mental hospital population are people with cerebral arteriosclerosis and senility.

Research leads in arteriosclerosis, include leads in the field of nutrition, of the glandular system, and the use of anticoagulant drugs.

C. *Alcoholism.*—The third largest cause of first admissions to mental hospitals. Research in the use of ACTH, cortisone and adrenal cortical extract, numerous vitamins as well as various drugs, is needed to prevent the admission of alcoholics.

7. Schizophrenia—additional comments

Numerous research workers feel that key developments in the last 5 years give us the right to hope that, if large amounts of money were expended on research and development, a chemical treatment could be discovered for schizophrenia, or at least some schizophrenics, within a reasonable number of years.

Funds are needed for immediate increases in grants to competent investigators, and for a thorough study to be made of all needed areas of research in the struggle against schizophrenia so that a many-sided campaign may be outlined against this disease, most costly to the taxpayer of all human disorders. (Reference: Unpublished statement by Hudson Hoagland, Ph. D., attached herewith.)

8. Senility and cerebral arteriosclerosis—additional comments

Senility, in large proportion, is the net result of cerebral arteriosclerosis and cerebral thrombosis which are the overt symptoms of arteriosclerosis. It has been shown by Dr. Irving Wright that the early use of anticoagulants in patients with cerebral thromboses has been helpful. Further exploration in the field of anticoagulants in people who have cerebral thromboses is needed to treat better and prevent additional thromboses and early mental deterioration of these patients.

(Reference: The Treatment of Cerebral Thrombosis and Embolism with Anticoagulant Drugs, William T. Foley, M. D., and Irving S. Wright, M. D., F. A. C. P. Reprinted from the Medical Clinics of North America, vol 34, No. 3, New York number, May 1950, published by W. B. Saunders Co.)

Another development is that recent research has found that development of arteriosclerosis depends on the presence of "giant molecules" in the blood plasma, much larger than the normal molecules. The reduction of fat in the diet appears to reduce the number of these dangerous molecules in the blood. Only a begining has been made in the dietary approach in the treatment of this disorder, but though many knotty problems remain to be solved, we may expect decisive help from this direction. Also Cholin and Inositol are now being tested as to their efficiency in treatment.

In another development, a better understanding of metabolic disorders in diseases of the heart and the arteries has produced favorable experience with a strict fruit-rice diet in the treatment of arterial hypertension, sometimes associated with arteriosclerosis.

(Reference: See Martin Gumpert, M. D., research fellow in geriatrics, third university medical division, Goldwater Medical Hospital, New York, N. Y. New Development in Geriatrics, in No Time to Grow Old, published by New York State Joint Legislative Committee on Problems of the Aging, Thomas C. Desmond, chairman, Newburgh, N. Y.)

9. More facts on alcoholism

As alcoholism, with and without psychosis, accounts for 11.2 percent of first admissions to mental hospitals, research for better treatment for alcoholism is desperately needed. Two investigators, Dr. James J. Smith, of Bellevue Hospital, New York, and Dr. Hugh Lovell, of New York Hospital, have separately found that ACTH brings alcoholics out of delirium tremens promptly and that adrenal cortical extracts or ACE maintains their ability to do without alcohol in many cases. Additional research in the field of adrenal hormones and more widespread testing of the findings of these two men is needed at once.

(Reference: The Endocrine Basis and Hormonal Therapy of Alcoholism, reprinted from New York State Journal of Medicine, vol. 50, No. 14, July 15, 1950.)

THE NEED FOR RESEARCH IN ADRENAL HORMONES AS RELATED TO MENTAL DISEASE

(By Hudson Hoagland, Ph. D.)

Mental disorder is characterized by disturbances of behavior and such disturbances frequently become bizarre and socially incapacitating. Because these disturbances fall in organized patterns there has grown up a classification of mental disease in terms of categories of psychoses and neuroses and psychiatrists are primarily concerned with the psychological aspects of these disorders and their treatment by psychotherapy. Since there is no such thing as a disembodied psyche, it is clear that all behavior from the simplest reflex to the most complicated of intellectual activities, must have an underlying physical basis in terms of events in the brain and other parts of the physical body. Mind and body are thus two sides of the same coin and there separation in any ultimate sense is meaningless. The patient with a severe psychotic disturbance must certainly have a disturbance in bodily function which is a challenge to research. If schizophrenic patients, for example, demonstrate characteristically abnormal behavior patterns there must be disturbances in the bodily mechanisms to account for them, no less than in diseases like cancer and diabetes. Comparatively little progress has been made in this field of research compared to many other branches of medicine for two reasons: (1) the great difficulty of chemical and physiological researches in this field, and (2) public apathy toward basic scientific approaches which have resulted in inadequate support for such researches. There is, how-

ever, a growing body of information which holds promise in dealing with mental disorders. From the point of view of cost both in money and in emotional impact on a large number of people this is the No. 1 medical problem of today.

One line of investigation that is of special interest deals with the role of hormones from the adrenal cortex in mental disorders. The adrenal glands are two small glands perched on top of the kidneys. The outside layer to this gland releases into the blood stream chemicals or hormones in very small amounts, which have profound effects on most of the organ systems in the body. These hormones are necessary for life itself. A man or animal soon dies if deprived of both of his adrenal glands and is given no replacement therapy. These hormones belonging to the chemical family of steroid substances regulate the salt and water balance between body fluids and tissues, a balance which is essential for the healthy life of the tissues. They are also concerned with the energetics of the body and are involved in the characteristic transformations of fat, protein, and carbohydrate. The brain is no exception since changes in some aspects of brain function have been found to accompany depleted hormone release from the adrenal gland. The outside layer of the adrenal gland is called the cortex and the release of steroid hormones from the cortex is entirely controlled by a hormone from the pituitary gland at the base of the brain. This hormone, called adrenocorticotrophin or ACTH, controls the rate of production of hormones by the adrenal cortex. The release of ACTH in turn is regulated by that part of the brain (the hypothalamus) near the pituitary gland that is, among other things, concerned with emotional expression.

With relation to psychosomatic disorders, such as stomach ulcers, rheumatoid arthritis and aspects of allergy, light is now being shed in several centers on how emotional upsets may operate through the adrenal cortex to produce some of these disorders. Thus, by certain tests performed on the urine and blood it can be shown that anxiety produces an increased output of hormones from the adrenal cortex. Anxiety and emotional disturbances involved stimulation of the hypothalamus which in turn stimulates the pituitary and hence the adrenal cortex to liberate its hormones. These hormones, cortisone being an example, may modify directly the state of inflammation of a joint such as occurs in rheumatoid arthritis or the course of rheumatic fever, or the development of a stomach ulcer by modifying the production of pepsin in the stomach. We thus see how psychological factors may produce bodily changes that are frequently associated with psychoneurotic states. Asthma and other forms of allergy are also influenced by the adrenal hormones and these conditions in turn are modified by emotional factors.

What are some research leads in schizophrenia?

Let us turn now for a moment to consider the most serious mental disease of all—that of schizophrenia. Twenty-five percent of all of the hospital beds in the United States are occupied by schizophrenic patients. The schizophrenic develops a bizarre form of behavior characterized by confusion of mental processes and by disorders and flattening of emotional responsivity. His ability to deal with symbols becomes incapacitated, and, as time goes on, these patients often degenerate into an entirely helpless state.

During the war we found that whenever a normal person is stressed, be the stress psychological or physiological, his adrenal cortex increases its hormone output. Schizophrenic patients have notoriously failed to meet life's stresses and we asked ourselves if this failure might be reflected in the physiology of adrenal mechanisms. We have accordingly tested a large number of normal people and schizophrenic patients with a variety of standardized stresses and we have found that most schizophrenic patients are relatively unable to increase their adrenal hormone outputs to anything like the degree that the rest of us can when faced with a standard stress. Many of these patients do increase their hormone output but on the average the increase is far less than in the normal population. We have found, moreover, by new chemical methods which have been developed in our laboratories, that the type of hormones these patients put out, even at best, shows a different pattern from those of normal controls. Our studies of isolated animal adrenal glands perfused with bloo and kept functional in glass apparatus have shown that some 15 substances are released into the blood stream when ACTH acts upon the gland. Five of these are hormonally active and others, while now becoming identified chemically, may later prove to have specific physiological effects. The schizophrenic's adrenal appears to release many of the same hormones as does the normal gland, but some types appear in excess and other types in subnormal amounts. Is it possible that

these hormones may modify brain action in such a way as to bring about disturbances in conduction of nerve messages in the brain so that confused behavior results? This is certainly an important question to answer and investigations are now underway to do so.

Not only is a schizophrenic's adrenal reactivity unresponsive to stress but he is unresponsive to the same degree to injected ACTH, thus indicating that his adrenal cortex does not respond adequately either to the ACTH released from his own pituitary on stress or that which he receives by injection.

It is possible that these adrenal abnormalities may be the result of the schizophrenic process and not the cause. Our data as yet cannot answer this question satisfactorily. We have, however, found that the more normal the hormone output from a schizophrenic patient's adrenal, the better is his chance of recovery when given electroshock therapy. Further research is necessary to elucidate the relationship of adrenal hormones to the schizophrenic process, and at present we have under way some crucial experiments to determine which comes first, the cart or the horse.

Repeated injections of ACTH do not result in relief of schizophrenia. Indeed we should not expect them to do so since such injections would merely exaggerate the abnormal hormone output. There are, moreover, a number of cases on record at the present time of people who have never shown psychotic symptoms and who developed such symptoms when dosed with ACTH over long periods of time. There are also reports in the literature indicating that certain types of adrenal tumors that caused prolonged overactivity of one adrenal will produce in some people symptoms indistinguishable from schizophrenia. In four cases reported from England removal of such an overactive adrenal has resulted in the relief of long-standing schizophrenia which had been refractory to all other treatments.

We have recently found that a type of adrenal steroid material appearing in excess over normal values in the urine of schizophrenic patients is similar to that released in excess by persons with malignant adrenal tumors. These schizophrenic patients do not have tumors but one aspect of their steroid metabolism seems to be similar. It is interesting to recall that associated with tumors of this kind one often finds psychotic behavior.

The prolonged administration of large doses of cortisone to schizophrenic patients is not therapeutically beneficial, but cortisone is only one of 15 steroids elaborated by the adrenal and these negative results should therefore not be regarded as unduly discouraging. Work from our laboratory has shown that adrenal hormones modify timing relations of messages in the nervous system, for example, the time factor for excitability of the rat sciatic nerve is increased after removal of the adrenal glands. Delays in conduction of nerve impulses across synapses in the brain have also been found after adrenal removal in rats. Electrical brain wave frequencies in rats are slowed when the adrenals are removed, and they are restored to their normal speed when adrenal hormones are administered. All of this work indicates a close tie-in between brain mechanisms and the adrenal hormones and since disturbances in brain mechanisms are the basis of psychotic behavior there is reason to hope that continued work may bear fruit in helping us to understand these disorders. Such understanding may ultimately lead to a rational form of chemotherapy.

Facilities for Treatment and Prevention of Nervous and Mental Disorders in Missouri, Particularly in St. Louis and St. Louis County

(By Edwin F. Gildea, M. D., head of department of neuropsychiatry, Washington University School of Medicine, St. Louis, Mo.)

The State of Missouri ranks below the middle of the Nation in its facilities for the care, treatment, and prevention of mental illness. This means that only the most primitive form of custodial care is provided for more than 90 percent of the people with nervous and mental disorders. The committee on legislative research for the Missouri Legislature has furnished documentary evidence which elucidates this deplorable condition. (See appendix III.) For example, in one of the State hospitals there is only one physician for 1,324 patients. There are practically no trained nurses and very little supervision of untrained attendants. The term "social worker" is not even mentioned in the report. The institutions are seriously overcrowded. In other words, the custodial care is so bad that it

serves to keep patients from getting well who might otherwise recover spontaneously if given reasonably competent custodial care.

The city of St. Louis has done somewhat better in the custodial care of its patients. A survey of the situation in St. Louis made in 1947 revealed, however, that there was only a minimum amount of treatment given in either in-patient wards or out-patient clinics. An analysis of facilities is presented in figure 1. It reveals the custodial nature of most of the services. It should be emphasized that publicly supported institutions are approximately 25 percent overcrowded. They are also understaffed. Privately supported institutions are not overcrowded because an excessive number of patients are not admitted. However, there are long waiting lists, and it is usually impossible to obtain admission to the neuropsychiatric wards of Barnes and McMillan Hospitals under 5 to 10 days. The treatment of private patients is extremely expensive. Hospitalization, not including the fee of a private physician, is around $12 a day. Private physicians' fees, when a patient is in the hospital, range from $5 to $25 a day, depending on the amount of the physicians' time required. As in other cities throughout the United States, there is no satisfactory place for the psychiatric treatment, and particularly hospitalization, of people with middle-class incomes.

The situation is not any better in Kansas City.

These serious deficiencies have been repeatedly called to the attention of the legislature and the public at large since the first study of mental-hospital conditions in the State of Missouri was made in 1920 by an outside expert. There have been about five similar studies calling attention to the lack of skilled personnel, overcrowding, and actual mistreatment of patients. There has been very little change in conditions in spite of the efforts of many people, with the exception that there is some slight progress in St. Louis and Kansas City; but even in St. Louis we are at least 25 years behind in applying what is known of modern psychiatric treatment. Needless to say, only a minimum amount of research in improving methods of diagnosis and treatment of mental diseases is conducted under these circumstances.

The reasons for the backwardness of the State and cities in caring for their citizens with nervous and mental disorders are the same as in other States. Fear, superstition, and the belief that mental illness is untreatable are the chief obstacles. The situation is somewhat worse in Missouri than in some States because the legislators from the rural areas hold the balance of power. They have no conception of what the problems of the cities are. They also have little appreciation of the difference of prices in the city as contrasted with the country. They also have no knowledge of modern developments in psychiatry. Therefore, the primary obstacle in the efforts to improve conditions lies in lack of adequate finances. With adequate financial support, personnel could be trained, out-patient services could be developed, overcrowding relieved, and ultimately people would receive modern psychiatric diagnosis and treatment.

In the past 3 years an effort has been made to induce the legislature to appropriate more funds for the care of the mentally ill. At first some progress seemed to be under way when the State took over the maintenance of the St. Louis City Sanitarium, now called the St. Louis State Hospital. This is of some help to the finances of the city of St. Louis, but it has not resulted in improving the care of patients. Nothing has been done to reduce the overcrowding, and it is now almost impossible to get patients from the city admitted to that institution. The result is that the Bliss Psychopathic Institute of the St. Louis City Hospital, designed for diagnosis and treatment of early cases and for research, is more overcrowded than ever. The Neuropsychiatric Service at the Homes G. Phillips Hospital for Negroes is even more overcrowded.

Gov. Forrest Smith has expressed his concern over this deplorable situation and has recommended to the legislature that something be done. He appointed two different committees to make recommendations. These recommendations were made and submitted to the legislature and apparently died there. In January 1950 Governor Smith vetoed the few items in the budget that would have enabled some improvement to be made in the buildings and housing conditions in the State hospitals.

PUBLICLY SUPPORTED FACILITIES

The situation in St. Louis with regard to the publicly supported institutions is deteriorating largely because of the depleted state of the city treasury. At the present time the only possible source of funds to improve the care of the mentally ill appears to be the Federal Government.

Recommendations.—It should be noted that the Federal Government through the Public Health Service has already made a beginning in this direction by

grants-in-aid to the Washington University School of Medicine for training and research. To date the grants only make a beginning in supporting adequate training and research. In the third column of the chart (fig. 1) the steps that should be taken to improve treatment in St. Louis and St. Louis County have been outlined. To consider first the publicly supported institutions, at the St. Louis City Hospital there is great need for an outpatient clinic. This clinic could be used for training residents and medical students and would prove an attraction to young physicians who were considering training at the Bliss Psychopatic Institute. If a training grant of $50,000 a year were awarded to the Bliss and the St. Louis City Hospital, an adequate clinic could be developed.

There is also need for at least two municipal child-guidance clinics, one to serve the courts and the board of children's guardians and the second to be more of a mental-hygiene clinic to supplement the services of the city health department's health centers. It is important to note here that recently the city has assigned approximately $22,000 a year for the development of a municipal child-guidance clinic as part of the city health service, and there is promise that this will be matched by Federal money allocated to the State. This would provide about half of the funds necessary for these clinics.

The St. Louis State Hospital badly needs an out-patient service. This institution is used for demonstrating psychiatric patients to St. Louis University medical students. If there were a good out-patient service, students could obtain some clinical experience in psychiatry under supervision, in this way obtaining an entirely different understanding of what treatment in psychiatry means. The Governor's committee on State mental hospitals drew up an outline for this clinic, including a budget which indicated how this clinic could be used for training personnel for the State hospitals and also in educating medical students to understand the needs and to perhaps become interested in psychiatry. (See appendix V.) It is possible that the State legislature would support this program if the Federal Government would match its appropriation. Unfortunately the Federal grant to the State for mental hygiene is interpreted as indicating that State hospitals should not receive any money for out-patient clinics.

With regard to the St. Louis public schools, no large program should be undertaken at the present time because of lack of personnel in the city. It is more important to develop our training centers first.

At the St. Louis County Hospital plans are under way to develop a mental-hygiene clinic in connection with the St. Louis County Health Service, which is adjacent to the hospital building. Dr. Domke, who is the new county health commissioner, plans to integrate this mental-hygiene clinic with the training of health officers and public-health nurses and also to develop a program in connection with the department of preventive medicine of the Washington University School of Medicine. The department of neuropsychiatry of the Washington University School of Medicine is much interested in this project as a place where research in community psychiatry may ultimately be done and also where the possibilities of closer cooperation between psychiatry and preventive medicine might be developed. A child-guidance clinic should also be developed as an adjunct to this service. Funds for development in the county should come from the State, from local contributors, and should be matched by training grants for personnel through the Public Health Service to the Washington University School of Medicine.

PRIVATELY SUPPORTED FACILITIES

At the present time the State of Missouri is almost entirely dependent on the two medical schools in St. Louis for personnel for training and research. In the case of psychiatry, a new department of neuropsychiatry at the Washington University School of Medicine has been developed during the past 10 years. It has been difficult to hold the men who were trained in teaching and research because of the lack of funds to keep these men and the lack of space. A further difficulty has been the lure of California and the high rewards of private practice in St. Louis. In the past 2 years, however, men interested in research have stayed on in spite of relatively low compensation and limited space. The department has now reached a point where it can aid in establishing training programs in publicly supported institutions, provided compensation is appropriated for personnel.

Since figure I was made in 1947, the budget of the Washington University Community Child-Guidance Clinic has been increased to over $70,000. This is partly due to a grant of $14,000 from Federal funds through the State of Missouri. The staff has been built up to a point where the situation is very satisfactory as far as psychiatrists, pediatricians, and psychologists are concerned. The staff is still lacking a head psychiatric social worker.

The chief needs for the development of neuropsychiatry at present are new quarters which will provide offices and laboratories for the staff, additional beds as indicated, and particularly adequate space for the child-guidance clinic. As the clinic has grown, cooperation with social agencies in the city has increased. Expansion of training and service is now only limited by lack of space. Building will cost between $1,500,000 and $2,000,000.

GROUP THERAPY PROJECT OF THE ST. LOUIS COUNCIL FOR PARENT EDUCATION

Members of the staff of the department have undertaken the development of group therapy for the parents of grade-school children who have begun to have trouble in school. The results of this project have been most satisfactory and it now appears that the children's behavior problems can be alleviated quite readily by this method and for a relatively small expenditure of time and money. An important feature of this project is that it is sponsored by an independent organization, the Council for Parent Education, that is made up of public-school principals and teachers, lay people, and psychiatrists. In this way the public schools do not feel that the university is interfering in their program and the parents are aware of the fact that the workers connected with this project are not employees of the school system. This unit should have a grant-in-aid to do a thorough investigation of the results of this type of therapy under this special setting.

ST. LOUIS UNIVERSITY AND ALLIED HOSPITALS

The department of psychiatry should receive sufficient support to develop into a major clinical department. The school of medicine has a new dean who is much interested in obtaining funds and personnel for such a division. The only funds in sight are again from Federal grants.

RESEARCH

The chief emphasis at present on the psychiatric program in St. Louis has had to be on improving treatment and training facilities. There is, however, great need for more facilities for research because, besides the important need for adding to our knowledge of psychiatry, the opportunity for learning about research should be given to the people in training in psychiatry and neurology. At the Washington University School of Medicine research has been done and is being developed in the fields of psychosomatic medicine and the investigation of psychological methods for evaluating psychotherapy. A biochemistry laboratory has been organized to investigate brain chemistry, the effects of hormones in various types of psychiatric patients and also a laboratory for electroencephalography and a laboratory for neurophysiology. In these laboratories many aspects of the physiology of pain are being studied, also the DC potentials and the possibility of their reversal. The effects of photic driving as a method of producing anxiety and of modifying the electroencephalographic patterns have been or are being investigated.

New funds for continuing and improving this research are urgently needed. The department has been supported in part by a grant from the Rockefeller Foundation. This grant terminates in 1952 at the end of 15 years. It is improbable that the Rockefeller Foundation will renew this grant. Local funds to take up this deficit are not in sight. It is planned to submit a request for aid in this research to the United States Public Health Service. These research projects now approximate an expense of $50,000 a year. In order to utilize the personnel now in training in this research and to develop the studies of brain-chemistry patterns and correlate them with anatomical and neurophysiological changes, will require at least $100,000 a year.

Some progress has been made in developing a type of comprehensive medicine that involves bringing the skills of psychiatrists, internists, sociologists, and anthropologists together in developing a new form of medicine which will bring

about the rehabilitation of the patient and the maximum use of his potentialities in spite of handicaps. There is some indication the Commonwealth Fund will support this work for a trial period of 3 years. If it is as successful as it promises to be, continued support will be important.

CONCLUSION

In summary, St. Louis is more than 25 years behind in applying present-day knowledge of modern psychiatry. Care of patients is chiefly custodial. The institutions are understaffed and overcrowded. In order to train personnel and insure the continuation of the training and research programs, as well as service to patients, appropriations amounting to $500,000 or $600,000 a year are urgently needed, in addition to what is being contributed by State, city, and private sources at the present time.

SUMMARY OF FUNDS NEEDED TE IMPROVE FACILITIES FOR TREATMENT OF NERVOUS AND MENTAL DISEASES IN THE ST. LOUIS AREA

The St. Louis hospitals serve a population of over 2,000,000 people.

A psychiatric all-purpose mental-hygiene clinic, part pay and free, is kept extremely busy by a community of 200,000 people. This means 10 clinics for the St. Louis area.

Present facilities are predominantly custodial and practically no treatment is given.

There is only one full-time all-purpose clinic, Washington University Neuropsychiatric Clinic.

The Washington University Community Child Guidance Clinic also can be counted as about a one-half-time service clinic.

The present plans, therefore, only constitute a beginning in fulfilling the needs in this area.

Estimate of funds required annually (in addition to present budgets)

St. Louis City Hospital, (Bliss Psychopathic Institute to operate all-purpose clinic. Includes service and teaching.)	$50,000
St. Louis State Hospital Out-patient (See appendix II)	112,000
Homer G. Phillips Hospital (now has $20,000 U. S. Public Health Grant, need $30,000)	30,000
St. Louis County Health Service and St. Louis County Hospital, mental hygiene and child guidance	50,000
Washington University of Medicine, Department of Neuropsychiatry:	
Washington University Clinics, teaching and to support part-pay and free services	50,000
Washington University Community Child Guidance Clinic	25,000
For research, psychosomatic, medicine, and biochemistry	100,000
Community psychiatry, development of group therapy and preventive psychiatry under auspices of Council for Parent Education	30,000
St. Louis University, Department of Psychiatry (more should be added as personnel becomes available)	50,000
Total	497,000

Estimate of building needs

Washington University School of Medicine, Department of Neuropsychiatry and Washington University Community Child Guidance Clinic need new quarters for both in-patients and out-patients, $1,500,000 to $2,000,000.

St. Louis City Health Department has funds available for building outpatient health centers which would also house child guidance and mental hygiene clinics.

St. Louis County Hospital and Health Department need outpatient quarters, $500,000.

FIGURE 1

FACILITIES FOR TREATMENT & PREVENTION OF NERVOUS & MENTAL DISORDERS

Existing Hospitals & Outpatient Clinics — ST. LOUIS CITY & COUNTY — New Facilities Needed

Publicly Supported

CITY HOSPITAL AND BLISS PSYCHOPATHIC INSTITUTE

BLISS INPATIENTS
200 bed capacity
Usually 300 patients housed
25% over 60 years

NO OUTPATIENT CLINIC

CHILD GUIDANCE CLINIC
(Not operating)

CITY SANITARIUM
2400 bed capacity
Over 3000 patients housed

NO OUTPATIENT CLINIC

HOMER G. PHILLIPS
100 beds for psychiatry
Overcrowded

OUTPATIENT SERVICE (TOKEN ONLY)

VETERANS MENTAL HYGIENE CLINIC
Understaffed, no Chief Psychiatrist

COUNTY HOSPITAL
No In or Outpatient Service in Psychiatry or Neurology

COURTS
Adult...only token psychiatric service
Juvenile...no psychiatric service

CITY SCHOOLS
No psychiatric service

Privately Supported

WASHINGTON UNIVERSITY SCHOOL OF MEDICINE AND ALLIED HOSPITALS
(Barnes, Jewish, Wm. Greenleaf, Wm. Clinics, St. Louis Children's Hospitals)
Psychiatric Inpatient...54 beds (600 patients a year)
Washington University Clinics...Total outpatient visits (all services) 135,000 per year

OUTPATIENT...NEUROPSYCHIATRIC CLINIC
New patients...1273
Return visits...5893 (veterans incl.)

PSYCHOSOMATIC MEDICINE
New patients...310
Return visits...1400

Washington U. Child Guidance Clinic (Interne part time)
New patients...109
Return visits...876

FOREST PARK CHILDREN'S CENTER
Inpatient only...9 beds

ST. LOUIS COUNCIL FOR PARENT EDUCATION
2 Public School Groups
20 parents...37 children

ST. LOUIS UNIVERSITY MEDICAL SCHOOL AND ALLIED HOSPITALS
(Desloge and St. Mary's)...625 beds
Outpatient Service...Dispensary 9,252 treatments (all services)
Psychiatric Outpatient Clinic...part time only
Children only 2 hours a week
No adult clinic

ALEXIAN BROTHERS HOSPITAL
225 beds
Psychiatric Outpatient Service...1 hour a week

JEWISH HOSPITAL
Outpatient Psychiatric Clinic...part time only

ST. VINCENT'S SANITARIUM
Inpatient only...250 beds

Publicly Supported

CITY HOSPITAL

BLISS INPATIENT
Reduce patient population from 300 to 190 per day by...
Transfer to State Hospitals
Treatment in Outpatient Dept.

PSYCHIATRIC OUTPATIENT CLINIC FOR...
1500 new cases
4000 return visits

CHILD GUIDANCE CLINIC FOR...
500 new cases
Board of Childrens Guardians
Courts
Foster Homes

CITY SANITARIUM
Outpatient Service

PSYCHIATRIC SERVICE FOR ST. LOUIS PUBLIC SCHOOLS
Parent Education included in all schools

COUNTY HOSPITAL
Psychiatric Outpatient Service

CHILD GUIDANCE CLINIC IN ST. LOUIS COUNTY

Privately Supported

WASHINGTON UNIVERSITY SCHOOL OF MEDICINE
NEW BUILDING NEEDED
Add 100 new psychiatric beds to present 50
100 OF THESE BEDS SHOULD BE COVERED BY ENDOWMENT, BLUE OR WHITE CROSS
Expand Outpatient services, particularly psychosomatic med
NEED TO CARE FOR 30,000 PATIENT VISITS PER YEAR

WASHINGTON UNIVERSITY CHILD GUIDANCE CLINIC
NEW BUILDING NEEDED
Jointly operated with aid from Medical School Departments of Pediatrics & Psychiatry, School of Social Work, Departments of Psychology and Education, Childrens Research Foundation & Community Chest
PRESENT BUDGET...$45,000
DEVELOPMENT ALMOST COMPLETED
$20,000 MORE NEEDED

AFFILIATE WITH — FOREST PARK CHILDRENS CENTER — Expanded Service needed
COORDINATE IN SERVICE AND TEACHING — SOCIAL AGENCIES
COOPERATE — PUBLIC SCHOOL GROUP THERAPY PROJECT OF COUNCIL FOR PARENT EDUCATION — To be expanded

ST. LOUIS UNIVERSITY AND ALLIED HOSPITALS
Outpatient Psychiatric Service...4000-5000 patient visits
Child Guidance Clinic
Case load 500 patients

THE MENTALLY ILL: THEIR CARE AND TREATMENT IN MISSOURI—THE IMPLICATIONS AND RECOMMENDATIONS DERIVED FROM THE 1948 REPORT OF THE COMMITTEE ON LEGISLATIVE RESEARCH

(By Edwin F. Gildea, M. D., chairman, subcommittee on mental health, Missouri Association for Social Welfare)

The report is an excellent one and is reasonably thorough in its study of the multitudinous aspects of the problem of the care, treatment and prevention of mental illness. The only important defect lies in the fact that it does not emphasize how grievously inadequate are the facilities for care of patients. It also gives no picture of the amount of human suffering and the tremendous waste of time and money that results from the lack of treatment of people with mental and nervous disorders.

The report, however, does emphasize the central problem, that there is a crippling shortage of doctors, nurses, psychologists, social workers and attendants and that for this reason the patients cannot have adequate treatment. The shortage is so great in one of the hospitals that there is only 1 physician for 1,324 patients. Again there is only 1 nurse for 1,282 patients. The hospitals are also seriously overcrowded.

There are several statements made in the body of the report that should be emphasized. On page 72 it is stated, "The most carefully managed operation at each of the hospitals is the dairy." It is an ironical fact that the cattle receive better care than the patients. On page 34 it is pointed out that because they lead such idle, indoor lives, mental patients are particularly susceptible to tuberculosis. If the patients had a program of outdoor activity and proper feeding that approximated that of the cattle, there would not be any more active tuberculosis among the patients than among the dairy herd.

From these facts it is obvious that large additions of personnel must be made to the staffs of the hospitals, particularly psychiatrists, nurses, attendants, psychologists, and psychiatric social workers. New buildings are important but a secondary need. This condition of shortage in personnel exists in practically all the States in this country. Missouri cannot obtain assistance from outside the State. Consequently the only answer to the problem of obtaining personnel lies in training young doctors and nurses in the methods of treatment of mental patients here in Missouri. States like California, Massachusetts, New York, and Illinois have demonstrated that a State hospital with well-run teaching and research services affiliated with a medical school attracts able young doctors, social workers, and nurses to the field of psychiatry. For example, the Boston Psychopathic Hospital, the New York Psychiatric Institute, and the Langley-Porter Clinic which is a State institution in California and the Illinois Neuropsychiatric Institute have more applications from young doctors for positions on the staff than they are able to accept. These institutions have Nation-wide recognition as excellent treatment, research, and teaching hospitals. It is noteworthy that they are largely financed by State funds.

RECOMMENDATIONS

A similar outstanding treatment and training center could and should be developed at the St. Louis State Hospital through affiliation with the medical schools of Washington University and St. Louis University. Such a program initially appears expensive. The per capita cost per patient per day would have to be increased gradually to $5 per day to provide nurses, attendants, and doctors. In addition a teaching program would cost $100,000 per year. The rewards, however, would be great. It would make possible the progressive solution of the shortage of doctors and nurses in the State hospitals. It also would make it possible to set up out-patient services in conjunction with the State hospitals and traveling clinics to areas of the State in need of doctors. With this increase in young personnel, a considerable proportion of the patients could be taken care of outside of the hospitals in the out-patient clinics. Also a foster-home placing-program could be developed similar to that used in New York and that which is beginning to be developed in Illinois.

The next most important step in obtaining adequate professional staff lies in improving salaries and also living quarters.

The third step, in order of importance, is new buildings and particularly facilities for care of out-patients, for laboratories and for the housing of hospital personnel.

Practically all the deficiencies carefully outlined in the report depend for remedy on an increase in and improvement in training of hospital personnel.

4000-5000 patient visits
Child Guidance Clinic
Case load 500 patients
ST. VINCENT'S SANITARIUM
Inpatient only 250 beds
No psychiatric service

SENILE PATIENTS

The care of the aged presents unique problems. Steps will have to be taken to provide special facilities for the care of these patients. Most of the senile patients present quite different needs in the way of care than the majority of mentally ill patients. The report points out that the proportion of senile patients has increased from 20 to 30.6 of the patients in the past 10 years. "If this trend continues, State mental hospitals will become homes for the aged and it will be increasingly difficult to carry on modern, active-treatment programs." The report suggests that under the provisions of legislation in Missouri, counties could provide institutions for the aged that would permit a sharing of the cost. They also point out that if these were properly staffed, the institutions would not be subject to the criticism so often leveled at the old-time county home. This committee wishes to emphasize that a proper staff can be obtained only if the new units for old people are located next door to existing general hospitals. These proposed institutions should be built next to the Kansas City General Hospital, the St. Louis County Hospital, and possibly the general hospitals in Springfield, Joplin, Cape Girardeau, and in other places where there are well-staffed general hospitals.

Mr. GILDEA. I will also describe what the situation is in St. Louis and in Missouri and the kind of funds that we need to take care of this work, because that is what I know about, the situation there. Also, it is an average picture of the state of mental disease throughout the Middle West.

St. Louis is slightly better off in terms of treatment programs than Omaha is, but it is very little better. It is like Chicago; and much the same thing, I would think, would apply to 10 or 12 other cities.

Mr. FOGARTY. I wish you would also mention in your statement to the committee what some of the progress is that has been made because of funds spent for research. That applies to all of the doctors who are going to testify this afternoon.

Dr. GILDEA. Yes. Well, Mr. Schlaifer has previously outlined some of the areas in which progress has been made.

I believe I can begin by saying that I think we can all agree that the first point is that mental health is an enormous problem. There is no question about that.

Secondly, we do not know much about it. The only way we will ever control mental disease is to know more about it, and the only way to do that is by research, and the only way to make research move faster than just by chance is by having substantial funds.

Every industry that has been through a program of research knows that you have to spend 10 to 1 in funds before you get a discovery that increases the production. You have the same problem when it comes to research in any scientific field. But, one single discovery may save a billion dollars, and you may spend, only, say, $50,000,000 on that discovery; I am just using those figures for illustration.

From that point of view, I think that we could completely justify the principle that within a reasonable limit increased funds for research must increase knowledge and ultimately more control over disease, mental disease particularly.

The areas in which progress has occurred have not been in the most difficult of the mental diseases like schizophrenia. But, there has been less research done in schizophrenia than in almost any other important major disease.

Mr. FOGARTY. Why is that?

Dr. GILDEA. Well, it is so alarming. I mean, it is the key to a group of diseases to which crazy people belong. I mean the kind of per-

son that goes to a State hospital and—well, the man that is talked about as being Napoleon, the man who thinks he is Napoleon. That is usually a schizophrenic.

So, it means that most of these schizophrenics are in these hospitals, out in the woods, as you say, and there are no doctors out in the woods. I mean, there might be one old man or some man who has been a failure. Of course, there are exceptions. I mean, there are some very good men in there, but they are very few.

So, there is no one to make any research on dementia praecox, also called schizophrenia.

That has been recognized, and the Federal Government—well, first the State governments like Massachusetts. They built a hospital in Boston near a medical school where there would be schizophrenics. That began in Boston just before World War I, and that is the institution that Dr. Menninger and myself and a lot of the younger, although they are now older, psychiatrists trained. It is a tremendous development.

That has been repeated in New York City and throughout the country gradually.

In St. Louis we have a very similar institution called the Bliss Psychopathic Hospital. It was built by Federal funds during the depression, and it has never had a sufficient budget to provide the staff, and I have to beg Dr. Menninger to do volunteer work. Until last year we had no one in there to conduct research, and that is because we have never been able to get sufficient city funds.

As you know, cities like St. Louis, where the original charter sets the boundaries, have a terrible problem raising money just for their own basic needs, let alone supporting any research for their institutions.

So, the little money that has gone into research was indirectly. We funneled back some of that into Bliss Psychopathic Hospital.

Now, we hardly know enough to get started on this research. For example, we do know—and that is about all we do know about it—that in some mysterious fashion the electric-shock treatment in the early schizophrenic may bring about a remission of symptoms and the man may get well enough to go home. Now, no one knows how electric shock works. It is a miraculous treatment for people in middle age with these mental depressions, and it also works occasionally in schizophrenia.

Now, the next step is to learn how this electricity works, what kind of electric currents we are putting through the brain—there are about 10 kinds of currents that you can put through a person's head, and nobody knows how they really work, and hardly anybody working in the field of mental disease knows enough about electricity or physics even to know how to give a name to the kind of current that he is shooting through the patient's head every day in the week.

We have trained across the country a few men in physics, and the future lies in supporting those men. I happen to know two or three of them who got most of their training from these research-grant fellowships, and they are now all set to go ahead, and if we do not get as much money for research in the coming year as we had last year a lot of those men will not be able to go on with their research.

They were stimulated and attracted into the field, and they are now supported by Federal funds, and it will just drop the whole program flat if they are not supported in the coming year.

Actually, in World War II and also in World War I, by cutting down funds in various ways, we set research, particularly mental research, way back for years, and we are doing it again in this world war, although we have a longer pull ahead of us than we had in World War II.

We will lose the progress that is now under way, for example, learning about electric shocks and the physics of electricity as applied to the brain. That is just beginning to get going, and it must be continued so as to have some relevancy to dementia praecox. Of course, it would be very helpful to know why it works in this field of depressive disorders, because the middle-aged people are benefited; about 80 percent of them make rapid recovery. There are still 20 percent for whom it does not do any good or maybe it does them harm; it makes them worse. It might be that another kind of current may improve those people, and so we need research.

Relative to our knowledge of brain physics, and physics in general as applied to people, that knowledge as applied to epilepsy has led to a great deal of progress there.

We have a machine called the electroencephalograph. It is an amplifying device. We call it the EEG. It is similar to the electrocardiograph which we call the EKG, and newspapers call it the "brain-wave machine."

Now, each person, all of us, puts out an electrical current from his brain that writes a definite picture characteristic of each person, very much like the markings on your fingers. That goes along constantly, and if you have a susceptibility to developing these epileptic seizures or convulsions you will have an abnormality in that brain-wave pattern.

Out of that work we have learned how to use new synthetic drugs that control those conditions.

But, here again, we have very few people who know enough about physics, and also about medicine and mental disease, running these machines, and a great many of these men who are running these machines cannot possibly fix them themselves. They have to send them back to Chicago or Boston or wherever they were made. When it breaks down it is like having an automobile and not having a garage in your town and every time your automobile broke down you would have to send it to New York City or to London.

So, we have just a very few cases where there are one or two men who know how to make those machines, and then we have a few others to use them and the rest of the medical profession and psychiatrists apply them empirically and hope that they get the right answer. We have an enormous amount of work to do in training young people in these fields.

I think it is easier to sell to Congress, to you people, and to the lay people these physical methods of study of disease, you see, that are similar to the methods of the atomic physicists, and other scientists, because we really think of them as "magicians." We think that some of that scientific "magic" is going to work on human beings, but we have not proved that yet.

But, there is also this problem, that except in the cases of schizophrenics—and I am not sure about that, either; that is still under research—that people develop these disorders, you know, because of unfortunate childhood experiences and all the complex things that go into character development which really had nothing to do with physics or very little to do with physics. With most of the people we have studied—and that is the mysterious thing about the patient with schizophrenia—all the physical tests, practically, that medicine so far has developed will not differentiate one of these schizophrenics sitting in a corner in a mental hospital, from you or me. I mean, we test up just the same, as far as all the presently known chemical and biological tests are concerned.

Mr. DENTON. Can you not tell from urinalysis some difference? At least one person here has told us that you can.

Dr. GILDEA. That is another one of those things. That is a controversial matter and the reason that there is this controversy about it is that there is not any places set up to do controlled urinalysis, that you can check.

I mean, most of the patients in the mental hospitals are rather badly fed. A lot of them do not want to eat. So, you have malnutrition with all of its factors.

So, before you can say that there is a difference, a little difference or any difference in the urine between a normal person's urine and a person in a hospital, you have to realize that he is probably a malnourished patient, and you know that all of that urine was from this patient that has been sitting in the corner doing nothing.

On that point, one of the very pieces of research now done by scientists has shown that if you put a patient in bed and let him stay in bed his calcium runs out of his bones. They become weak. You can incapaciate a person by leaving him in bed.

Now, some of our mental patients get so that they go to bed and stay there and you have these secondary changes occur, but they would happen to anyone if he stayed in bed.

So, that is why any report that urinalysis is different in schizophrenics, different from any other person, maybe by an energetic fellow who has fought against all obstacles, like the person who sets up a little laboratory in a hospital, for instance, must be scrutinized.

Now, he usually already has a little practice in research work and he gets into the hospital and he gets somebody to get the urine, the nurse or the attendant to collect the urine from the schizophrenics and then they mix them up, they lose part of it, and by the time you get those urines in the laboratory it is from three or four different people and there is only half of the 24-hour collection and so you get the most peculiar results under those circumstances, and that is why there are these arguments about it.

In our institution we tried to repeat some of that work and the urines were perfectly normal, once we got enough people working to collect all of the urine and see that they came from the right person and saw that somebody had not spilled something into the container, and so on.

However, all of these errors are simply due to the lack of money to hire ordinary people that you can train to manage the patient and supervise the work and so on and to do adequate metabolic studies.

That is one of the most expensive kinds of research work that you can do, and the only place it is justified is where the findings are very dramatic, like with your diabetics or your thyroid disease and so on.

In my research laboratory, for instance, or any laboratory with a 10-bed unit, so that you can get all the urine, it means $50 or $60 a bed, to get the personnel to handle that unit. Obviously, we cannot have units like that for research because most places cannot afford it. It is $1.50 or $2 or $2.50 a day for the care of those patients. Then, when you try to put a research laboratory into that set-up, everything is in such a mess that you have to reorganize your whole ward and your whole nursing program and everything, from the ground up, and if you do not do that you get these erroneous answers.

Now, I have gotten off the track. Maybe I had better start on something else.

Mr. FOGARTY. Do you have any questions, Mr. Busbey?

Mr. BUSBEY. No.

Dr. GILDEA. Well, actually, to get back to how you are going to do research in a thing like schizophrenia, it means employing places like Boston Psychopathic. At Boston Psychopathic today we have very splendid resources for research. But they have to spend one-third of their time writing up special requests here to Washington and each year they have got to go through that and in some years the study section committee decides, "Well, this year we have got to do the right thing by the social sciences, so we are not going to support this physiological research any more."

So, suddenly, a person who has started a research program finds that he does not have any money and so he loses his technicians and the whole program. Nearly all of the research that there is has been done on a year-to-year and hand-to-mouth basis and our projects are only half done.

The New York City Psychopathic is a little bit better off but not much. Then, you can go through the rest of the country and there is hardly anything until you get to Chicago and California. We have just a beginning of places set up for research that you can compare with the kind of research you are doing in some of the cancer research centers. We do not have things like that.

Worcester, due to the efforts of Hudson Hoagland, has raised money for research, but he has to depend on the Worcester State Hospital, which is one of these understaffed places. I am sure they get different results from what we get, because there is such a big gap between his research laboratory and the psychopathic ward, and they lose the urine or they get it all mixed up.

Mr. FOGARTY. Dr. Hoagland appeared before this committee before. I understand he is doing quite a bit of work with schizophrenia.

Dr. GILDEA. Yes. It is about the only place doing a major job on schizophrenia and it is not a well-set-up place because he has this schizophrenia—I mean, the splitting between the private research institute and the State hospital and he has to depend upon a resident, a younger man with very little training, to pick up the schizophrenics and see that the samples are collected. His laboratory service is four times as much as his hospital service and he has no control over the hospital service. So, we need very much to develop these unified research centers in five or six or seven cities, something like that, and then I think we can get somewhere.

Mr. FOGARTY. This new clinical building at Bethesda will be in operation about a year from now.

Dr. GILDEA. That will be a big step forward.

Mr. FOGARTY. That should be a help.

Dr. GILDEA. That is right. They ought to be able to have one of these wards that is really perfectly run.

Now, it is one of those ironies that we can get funds, or some people can get funds to do research on animals and yet we cannot set up a ward for mental patients under these control conditions.

Incidentally, the mental patients seem to be glad to be put under control conditions. They get so much attention. It is a lot better than sitting for years in a crowded ward, and that is probably one reason.

Before I close, I want to emphasize this physical research. I think that the last year and year before we oversold the hormones to you, as far as mental disease is concerned.

Mr. FOGARTY. We thank you, Doctor. I know you have to catch that plane.

Dr. GILDEA. I have left my material. I think I have said all I want to say.

Mr. FOGARTY. Thank you, Doctor.

Mr. Schlaifer, will you call your next witness and introduce him?

Mr. SCHLAIFER. Yes. He is Dr. Wortis. He is the head of the department of psychiatry of the New York University Medical School.

He is a member of the National Advisory Mental Health Council; and of the mayor's committee for study of marijuana and for study of sex offenses in New York; the National Research Council and New York Academy of Medicine.

He is director of the Psychiatric and Neurological Services of University Hospital, New York University, Bellevue Medical Center, and professor of psychiatry and neurology and chairman of the department, New York University Medical College. I think that about covers it.

Mr. FOGARTY. Well, he should be qualified to speak on this subject, if anybody is. You have appeared before this committee before. We are happy to have you with us again.

STATEMENT OF DR. S. BERNARD WORTIS

Dr. WORTIS. Mr. Chairman, and gentleman, it is a pleasure to be here before your committee again. I know that you are always thinking in the interest of the people.

During the past several years it has been my privilege as consultant for several Government agencies and that, and also responsibility in several national medical organization committees and experiences have given me, I think, an unusual opportunity to evaluate the mental-health problems of this country and particularly the needs in terms of community facilities as we cope with this No. 1 public-health problem.

Others here today will probably stress the aspect of the community health service and medical training programs. I would like to focus on the research program in mental health.

The American public has always through its elective representatives supported the principle of supporting medical research. Indeed, it must be emphasized that the continued expansion of medical research, including scientific manpower and facilities, is of top priority in the Nation.

In these days of manpower needs and shortage in industry, schools, and our public services and our laboratories, perhaps the most important man to be encouraged today is the research scientist whose achievements have almost single-handed changed history, modified geography, and immeasurably increased our life span and rid us of a host of crippling and disabling diseases and pointed out possibilities of stupendous magnitude.

Research in any field is of two kinds: basic and applied. Basic research in plant-animal tissues holds the key to most of the biological processes and scientists have learned to use these keys. Basic research is generally the principal line to progress, but it often takes a long time to pay off.

Applied research can only follow the materials placed before it by basic study. Generally the effects of such applied research are proximate and much more dramatic.

However, both types of research are clearly in the national interest and both of them are needed in the mental-research program of today.

The vast expenditures on basic research and development by the Atomic Energy Commission and the Armed Forces are of critical importance to the national defense. Increased expenditures in the field of medicine, especially mental health, are of no less importance to our defense, our survival, and our healthy growth as a nation.

Some advancements have been made in recent years but despite that our knowledge of the causes and treatment of mental disease is neglected, as is the interrelationship of the problems involved, biological and psychiatric and cultural factors that cause instability and anxiety and panic and mental breakdown; those need a great deal more study.

And now may I emphasize before this committee that most mental illness is of short duration. There is a common misunderstanding on the part of the public, that most of these are very long. Well, most mental illness is of short duration.

I think it might be of interest to know that in a hospital like Bellevue Hospital we discharged back to the community after a very short stay two-thirds of the patients admitted, because they are intensively treated and only one-third of the patients need longer treatment.

Mr. FOGARTY. That was not true a few years ago.

Dr. WORTIS. No. A few years ago we were not able to do that well. We are now able to do it better than before. We need more research in order to know how to prevent and minimize both the long time and short time and treat them more rapidly and effectively.

Without basic and applied medical information our already crowded mental hospitals will burst at the seams, which seams are already seriously strained.

Now, your committee and Congress in these difficult days needs cold facts and hard figures if you are going to support recommendations for expenditures in these times of high taxes and everyone here who has come before you to testify is cognizant of the responsibility on your shoulders.

Let us review some of these facts for you briefly.

Despite the predictable fact that 10 percent of the American people will need psychiatric help, and the fact at least 60 percent of doctors' practice evidence neurological disturbances which immunization and inoculation and antibiotics have minimized, the morbidity from infectious diseases, but despite this mental illness is increasing, as is delinquency and juvenile dope addiction and alcoholism, conditions leading to crime and broken homes; and hardening of the arteries of the brain is increasing, and over half of the hospital beds are filled with these mental cases.

Then, there is the fact that our military experiences in both world wars have shown the seriousness of the mental health problems—in the presence of all these storm warnings we are not spending enough, we are spending too little money in that direction.

It may interest you to know the research is meeting the challenge. Research grants made during the last year cover the following general categories of medical investigation.

There are very basic studies on normal child development, and that is a most important field for physicians to know about. There are basic studies in normal psychological development going on under grants made by the Congress. There are basic studies on the anatomy and physiology of the nervous structure, and the importance of understanding the nervous structure and the functions of the brain and the nerves, its behavior in both normal and diseased conditions is obvious to you gentlemen.

There are basic studies in morbidity. Incidentally, we do not have this information. One of the basic difficulties with the statistical data in medicine is that we have mortality data, but we do not have morbidity data, and that is costing the American taxpayer untold amounts of money.

There are special clinical studies being carried out on the cause and symptoms of diseases like schizophrenia and children's disorders and the so-called psychosomatic disorders. There are considerable funds being spent on the evaluation of both therapeutic and preventive techniques in mental health. There is research on psychotherapy whether it be individual or in groups, what we call milieu therapy.

In addition there has been money spent on the development of such things as special diagnostic procedures, which is a very important field, because these diagnostic procedures can help us pick out the disease at its early inception.

There is also money spent on research for humans and animals and also money being spent on studies, clinical studies on the relationship of stress to mental health; the effects of war, the effects of industrial life.

There is also money being spent on the selection of mental health personnel.

Gentlemen, considering the seriousness and the size and the staggering cost of mental health to the United States, we still spend too little on research in this field. During the past year general medical health research was supported to the tune of about $4,300,000 by the Public Health Service. In addition cancer research received $3,000,000, and heart research $4,000,000; microbiology almost $2,000,000, and mental health only $1,600,000, a deplorably small sum, although we

have gotten a fairly decent start with the help of this committee and Congress to solve the Nation's No. 1 public health problem.

Recent studies by the National Research Council have shown, moreover, that as Federal funds have helped establish the medical research program, there has been correspondingly increased help given by private sources. We need both of those in the mental health field.

I remember one time when testifying before this committee there was a great deal of question in certain members of the committee's minds that if the Government supplied funds private funds would dry up.

Evidence collected today has shown that not only private funds have not dried up but they have increased as the Federal funds increased, to further the job.

It may interest this committee also to know that since the inception of the National Institute of Mental Health 345 mental research grants totaling $4,500,000 have been made, and eliminating renewal of projects, 126 projects were granted. The number of applications received were 836, totaling to requests for about $12,700,000. Of these, 418 totaling about $5,780,000 have been or will be recommended by the National Mental Health Committee. At the end of this fiscal year it is estimated that 59 recommended applications that were considered by the Advisory Council, excellent projects that would give a great deal of insight, will be held up and will not be able to be financed because funds are not available. They do not have sufficient research funds to support approved projects to help in this major health problem.

The American people know that mental health is a purchasable commodity and their representatives have an authorization to invest in the protection of the health of this Nation. This committee has been very cognizant of that and we sincerely hope that it will continue to be.

We spent $1,000,000,000 last year for industrial research. We have from $500,000,000 to $1,000,000,000 for military research.

Now, I do not criticize such expenditures, because they are necessary and because they are for basic research by which we can and will save billions of dollars and it will help to restore our industry and agriculture.

You may ask, if you like, what are some of the related fields in which we need additional research? Probably the major problem facing us today is not only the anxiety, the alcoholism, the crime, the juvenile drug addiction, other juvenile delinquency problems, but also research in the aging processes.

If some young fellow working in a laboratory with grants could solve the problem of hardening of the arteries it would make this country probably the healthiest manpower resource in the world, and it is not beyond the possibility of research for this to be accomplished.

Mr. FOGARTY. Doctor, you have done quite a bit of work in the epileptic field, have you not?

Dr. WORTIS. I have been interested in it; yes, sir.

Mr. FOGARTY. What progress has been made in that?

Dr. WORTIS. Well, a great deal in that field, Mr. Chairman.

The older drugs that we used were, as you probably know, sedatives. They were drugs that deduced the irritability of nervous tissues.

The newer group of drugs, such as the phenylhygonlion group, is a group of drugs which do not make a person sleepy and they do not have a sedative effect but they cut down on the irritability of brain tissue. That has completely revised the treatment of epileptics, to the extent that many of them can be put back into useful work. In this field the surface has only been scratched.

Mr. FOGARTY. Now, Doctor, briefly will you tell the committee some of the improvements you have seen in the last 2 or 3 or 4 years?

Dr. WORTIS. Since the appropriations from this Government source have come about?

Mr. FOGARTY. Yes.

Dr. WORTIS. I would list them as follows, if I may.

In the first place Congress has made it possible for a very large number of very well trained personnel to be available in the field.

Congress has also made it possible through grants to States to improve very considerably the mental health community services that have been made available.

I think it might interest this committee again to know that since the start of 1951 all of the States and Territories have been participating in the national mental health program.

Prior to 1948 the Federal funds for the development of community mental health services were used in 24 States and Territories for State-wide mental programs. Since that time through the aid of these funds the remaining 29 States and Territories, including the District of Columbia, have begun programs. Some of these programs are still in the early stages of development and others are very much advanced, but all of the programs have shown significant progress during the past year, particularly in the educational activities which have been initiated.

Approximately 60 percent of the State grants budgeted in 1951 were utilized in psychiatric clinical activities. The majority of the clinics carried on intensive educational and consultant activities.

Of the remainder, 12 percent was for mental health, 9 percent for training, 9.8 percent for program administration, 2.7 percent for central administration, 5 percent for professional services, and 0.9 percent for special duties. This has increased the community service part of the program.

A third thing that this money has done or made possible has been the very considerable training of medical practitioners both at the level of their medical study and training when they graduated, and these were made available to medical schools throughout the country not only at the undergraduate level but at the graduate level as well. If it had not been for this type of support we would not have the basic personnel necessary to do the job.

Moreover, mental health curiosity and mental treatment standards have been raised, and they have been brought to the public attention through these funds. The dignity of the person who is ill with a mental disease has been considerably developed.

Mr. FOGARTY. Is there any improvement in the conditions at the institutions in the various States?

Dr. WORTIS. Considerable improvement; yes, sir.

Mr. FOGARTY. That was a pretty sad picture.

Dr. WORTIS. It was a pretty sad picture until your committee saw fit to recommend these appropriations.

Mr. FOGARTY. And there has been definite improvement in the conditions in these institutions?

Dr. WORTIS. There has been. There is room for more improvement.

Mr. SCHLAIFER. I might add that the States that before only appropriated dollar for dollar are now appropriating $5 for every $2 appropriated by the Federal Government.

Mr. FOGARTY. I remember the controversy you referred to when you started—over the claims—that by making these initial grants in the field of mental health the private funds would dry up and slack off.

Well, to my knowledge, heart and cancer and other drives are increasing and more money is coming in to them ever since we have come into this field.

Dr. WORTIS. There is, and one can look forward to the future. I hope that when circumstances make it possible we will have block grants financing research. At present the research grants are being made on a yearly basis.

However, you want to keep young people in this field—it is very distressing for a young man who wants to make a career in this service to be told that his grant runs out at the end of each year.

We need men in this field and these people should be given adequate support, they should be given block grants for research, and these block grants to research institutions, it would seem to me, would be a very good step forward in developing this program on the research level.

Mr. FOGARTY. By a block grant you mean that a research grant be given to a research institution and then they decide what program they want to spend that money on?

Dr. WORTIS. Yes. For example, now there may be some institutions that have initiated studies in certain fields, such as antibiotic chemicals. Now, if you are a research worker in this field, you cannot always predict what you are going to be able to find 3 years from now. That is not research; that is predicting. In the field of scientific research one cannot crystal gaze with that degree of accuracy.

Very often a young man gets an idea, and it takes him off on a tangent, in terms of getting some basic data, let us say, and I think it would be a very useful investment to be able to support some such young people over a period of time, those especially who would be working in well-accredited research units so that there could be a degree of continuity in such research work.

Mr. FOGARTY. Well, as you know, we did have a program of forward financing.

Dr. WORTIS. Yes, sir.

Mr. FOGARTY. And that met with some opposition from the Bureau of the Budget.

Dr. WORTIS. Yes, sir.

Mr. FOGARTY. It was in the appropriation bill 2 years, and it was there for that purpose. It was established so that they could be assured of getting support over a period of years.

Dr. MENNINGER. Could I speak to that point for a moment?

Mr. FOGARTY. Yes.

Dr. MENNINGER. I strongly endorse what Dr. Wortis has said.

Our whole problem in the field of medical research has centered around the fact that the tradition has grown up that the research

worker has to try to spell out to a research group the idea that he has and specify what it would cost and what he would like to have for the coming year.

Until we had this forward financing, that was the universal system in most medical research.

So, if you got a professionally capable young fellow doing research and if during the year he wanted to change his course, then again it was necessary to get permission from the higher authorities to change.

The dilemma was that you could not get capable research workers on a 1-year basis. People like that do not just grow up in this country and have families on a tenure of 1 year, if they can conceivably do something else.

In this field of research the great majority of the men who are the most brilliant workers have plenty of opportunities to go where they can get a tenure with security economically, without worrying about what they can get for each year.

I believe that we should grant these funds to the institutions and then gamble on the people and turn them loose, rather than trying to make them spell out how much stationery they will need, and how much traveling money they will need, and how much gadgets they are going to have for another year's work.

The only way to build this up really is to have the research group have the funds and not have those workers living on a year-to-year tenure. The present system is a handicap to a continued research program.

Nobody knows where he stands. Maybe he will have money next year, and maybe he will not, and we believe that should be corrected.

I believe that that would build up research and make research more productive.

Mr. DENTON. The only difficulty is that one Congress cannot bind another Congress.

Dr. MENNINGER. I appreciate that.

Mr. DENTON. The Congress one year might favor something, and the next Congress would not.

Dr. MENNINGER. Yes. Now, there is another point related to this.

As you know, the Public Health as well as some of the other Government agencies have 7-percent overhead for research. When they apply for $10,000, say, they give 7 percent for overhead for running it.

That in itself is an extremely unrealistic figure, in that you cannot supply the facilities, the space, the accommodations, the necessary help, for that 7 percent. So, every organization that takes a grant under the present circumstances has to add to that from some other source or out of its own pocket. It would add, on a rough estimate, up to 50 percent of the grant because a man has got to have a place to work in, and the grant never pays for that. That is another difficulty in our granting system under the present set-up.

The Navy has had it much more flexible. The way they are doing, they give up to 50 percent for overhead.

Mr. FOGARTY. Any questions?

Mr. DENTON. Is there a connection between hardening of the arteries and other circulatory or heart trouble and mental conditions?

Dr. WORTIS. Well, the circulatory system hits the heart, and it may hit the extremities or the brain.

The thing is that the possibility of that has increased considerably, so that the larger number of persons admitted to mental hospitals were persons having these so-called schizophrenic conditions, with hardening of the arteries and that is because doctors have been smart enough to keep those people alive for a longer time. So, they have hardening of the arteries.

Mr. DENTON. And do you work together with the heart investigators?

Dr. WORTIS. Oh, yes; those aspects of it that concern themselves with mental health and with the brain are referred to the Mental Health Study Section. They have experts in that field.

Mr. DENTON. I am very glad to have your explanation of what these grants are for. I am sympathetic with the program before you.

However, you probably know that there are some newspaper articles which contained a great deal of criticism of certain grants of the Mental Health Institute. Several Members of Congress have spoken to me about it, and undoubtedly we will hear from them when this bill hits the floor.

I think that anything further you can give to explain those grants would be helpful and perhaps enable us to give a good explanation to other members.

Dr. WORTIS. One of the projects that was criticized was a project giving support to work done by Dr. Liddell, who was interested in studying certain conditioned reflexes in animals as they are affected by the aging process. That is perfectly valid research, in our opinion. It seems to me most unfortunate that some people who like to make the headlines take advantage and criticize these things when they really do not know what the purpose of the research program is.

Dr. Liddell is a very distinguished investigator, and this work is thoroughly legitimate work.

Another one of the projects about which they were concerned was the problem of the cultural and psychiatric factors in relation to the mental-health problems, work done among the so-called Hutterite Indians, studies to determine the effects of a purely communal and isolated group, a small group which lives in a communal fashion.

From the problem of mental health, certainly it is interesting to learn whether persons who live in such close communal relationships have a lower or higher incidence of mental illness or maladjustments.

That is a different situation from here. In America we have a country that is a melting pot for many races of people coming from all parts of the world.

One of the other projects that I believe they concerned themselves with was a study of the Peyote cult in India. These are studies designed to learn the factors that make for mental disturbances in such a group.

Another study is a study made concerning complementary needs.

That relates to marriage.

Well, I think that one can categorically say that the strength of a country depends on people getting married, and staying married, because the basis of stability is the family; and if we can learn something about what makes for the stability of a family, then Congress will have invested very wisely.

I hope that explains it.

Mr. BUSBEY. I have received several letters about the last one. That is under Professor Finch in Northwestern University.

Dr. WORTIS. That is right.

Mr. BUSBEY. I had quite a number of letters on that, wanting to know the "whyfore" and the wherefore of the grant.

Mr. FOGARTY. Do you have any further statement to make, Dr. Wortis?

Dr. WORTIS. I have no further statement to make.

Mr. FOGARTY. Will you introduce your next witness?

Mr. SCHLAIFER. He is Dr. William C. Menninger. He is of Topeka, Kans.

He is a member of the National Mental Health Committee. He is general secretary of the Menninger Foundation in Topeka, Kans.

He was a brigadier general in the Medical Corps of the United States Army from 1942 to 1946.

He is past president of the American Psychiatric Association and the American Psychoanalytic Association.

He is senior consultant at the Winter Veterans' Administration Hospital in Topeka, Kans.

He is a consultant for neurology and psychiatry to the Surgeon General of the Army.

He is chairman of the subcommittee on psychiatry and neurology, Committee on Federal Medical Services of the Hoover Commission.

And many, many other qualifications.

Mr. FOGARTY. We have had the pleasure of listening to Dr. Menninger before, I think some 5 or 6 years ago.

Dr. MENNINGER. Yes, sir.

Mr. FOGARTY. It was in 1947 or 1948.

Dr. MENNINGER. 1948, I believe.

Mr. FOGARTY. We are very pleased to have you back with us again.

STATEMENT OF DR. WILLIAM C. MENNINGER

Dr. MENNINGER. I will not read the remarks on the first part of my statement concerning my background.

Mr. FOGARTY. They will be placed in the record, however.

(The matter referred to follows:)

My name is William C. Menninger. I am a physician, serving as general secretary of the Menninger Foundation, Topeka, Kans. I am certified by the American Board of Psychiatry and Neurology as a psychiatrist, and have been practicing this specialty since the completion of my internship at Bellevue Hospital, New York City in 1926, following graduation from Cornell University Medical College in 1924.

During the last 10 years, in addition to my clinical practice in the field of psychiatry, I served in the Army approximately 4 years. Following the war, I served as a consultant to several governmental agencies. I have had some important responsibilities in several of the national organizations of psychiatrists. It has been my privilege to visit many psychiatric hospitals and on numerous occasions to attempt to interpret the present mental-health picture to large groups of lay persons. These and other experiences have given me unusual opportunities to evaluate the progress to improve the mental health of our country. It has given me the first-hand information of our needs in terms of psychiatric manpower, research and facilities, to cope with this problem.

Dr. MENNINGER. My assignment at this hearing is to attempt to present the enormous need for trained manpower if we are to make further progress in the battle against mental ill health. In doing so,

I should like to list points: (1) To review briefly some facts regarding the status of mental health in this country; (2) to consider the progress made since the passage of the Mental Health Act; (3) to take stock of our present position; and (4) to indicate essential goals for the next few years.

The substantiating facts and figures relative to the status of mental health have undoubtedly been presented to this committee at previous hearings. Nevertheless, they furnish a necessary backdrop in considering ways and means of improving mental health. Even on the basis of being somewhat repetitious, I should like to summarize briefly some facts and opinions as to why mental ill health is still the Nation's No. 1 problem in the entire field of health.

1. The number of potential persons involved in the area of mental illness is great, particularly in periods of acute social stress. We cannot ignore the facts that our current method of living is at a faster tempo, with more competitive pressures and with perhaps more social conflicts than ever before. Nor can we forget that we are living in a prolonged period of national emergency.

2. The number of psychiatric patients exceeds the number of patients suffering from any other type of illness.

3. Approximately 50 percent of all hospital beds in America are required for this group of illnesses—and I give you the figures—662,452 of a total of 1,425,222 beds.

4. By conservative surveys, the personnel shortage in psychiatry is the most acute of any medical specialty. Available: 6,000 physicans, practicing psychiatry. Minimum estimated need: between 15,000 and 18,000.

5. The amount invested in research in mental health is less than 2 cents out of every dollar spent on all medical research.

6. Personality disorders were the cause of 37 percent of all draft rejections in World War II. This represented 1 out of every eight men examined.

7. Psychiatric disability was the greatest single cause of lost military manpower, representing more than 50 percent of all men discharged from military service during the war.

8. The need for treatment facilities, including both hospitals and clinics is probably more acute than in any other medical specialty, because of this enormous patient load.

9. The extent of tested knowledge in psychiatry, especially in the area of prevention, is extremely inadequate.

10. Mental ill health represents the greatest cost in money of any of our health problems. Even so we are doing a very inadequate job in caring for our mentally ill patients. Approximately 40 percent of the medical care budget of the total Federal budget for health is for mental health, and from one-sixth to one-third of the State budgets in our larger States—New York spends $118 million out of a total budget of $380 million; Massachusetts spends $16 million out of a total budget of $58 million.

It was my privilege to serve as member of the Mental Health Advisory Committee to the Surgeon General of the United States Public Health Service from its beginning in 1946 through June 30, 1949. I have had the opportunity to follow it closely since that time. I have always been impressed with the thoughtful and conscientious admin-

istration of this program. I am tempted to review the accomplishments that have been made in the State programs, which have been enormous, and the investments in research. My emphasis here, however, is to be placed on the training program.

In my opinion the impetus of the Mental Health Act, through its provision of funds for training has been an enormous factor in our forward progress toward better mental health. The personnel picture has greatly improved during these last 5 years, and much of the credit can be given to two factors: the Mental Health Act itself and the progressive steps taken by the Veterans' Administration. It has been through the Mental Health Act that our medical schools and other training centers have been helped, with resulting accomplishments that otherwise could not have been achieved.

(1) Since 1948, the Federal program has provided the funds for the training of 1,700 professional personnel in the field of mental health—psychiatrists, psychiatric social workers, clinical psychologists, and psychiatric nurses. A very high percentage of these persons—estimated at above 90 percent—have entered public service.

(2) The improvements in our medical school curriculum for undergraduate students have been phenomenal. Whereas 10 years ago many medical schools provided as few as 25 hours in psychiatry in a 5,000-hour 4-year curriculum, there are few now who give less than 200 hours in this subject, continuing throughout the 4 years. One school now provides 500 hours. Through the Mental Health Act, 42 medical schools have received training grants enabling this change to come about. Currently 13,000 undergraduate medical students in these schools are benefiting from this program.

This change in the medical school training has its real significance in giving the average medical graduate a knowledge of the emotional factors in disease. Approximately 50 percent of all patients that go to all doctors, do so because of emotional problems that are reflected through the physical organs of the body. Therefore the average doctor must know much more about the diagnosis and treatment of such disorders than has previously been taught in the medical schools. The medical practice of specialists and general practitioners can be—and is—a major factor in the total effort to improve mental health.

(3) As a direct result of the financial aid from the Mental Health Act, the education of other than physician members of the psychiatric team has greatly profited. Dr. Robert Felix, the Director of the National Institute of Mental Health, tells me that the teaching program of the Institute has directly benefited approximately 5,000 trainees in psychiatric social work, 2,300 clinical psychologists, and 500 nurses. Just as in the case of the benefit to medical students, the influence of this program is benefiting some 12,000 undergraduate nurses during their training school experience.

(4) Coincident with the passage of the Mental Health Act in 1946, the authorized hiring schedule of State hospitals called for 79,740 employees. Low salaries, the 12-hour day, and the abominable working conditions left 16,000 positions more or less constantly vacant. Today, a little more than 5 years later, approximately 100,000 men and women staff the State hospitals—which have, in the interim, expanded greatly their physical facilities. The average numerical increase in staff is about 50 percent. In a few key hospitals the ratio of staff member

to patients has reached a level not too distant from the high standards set by the American Psychiatric Association. The number of full-time physicians has risen in these 5 years by 19 percent, supplemented by hundreds of externs, interns, residents, and consultants. Graduate nurse employment has mounted by 35 percent. The number of occupational therapists and social workers has been doubled, while the number of psychologists has trebled.

Our personal e perience in Kansas is pertinent at this point. Four years ago the Topeka State Hospital was a house of doom where 1,800 patients lived in untreated misery. In 1948, with a psychiatric staff of 3 overworked doctors and 1 nurse, only 41 patients were discharged—death claimed 4 times the number of people discharged.

The people of Kansas, presented with the facts, decided that it was totally uneconomical and a tremendous waste of human resources to keep piling people up in this house of doom. The Kansas Legislature responded with a large appropriation. The full-time medical staff at Topeka State was increased to 12, and 10 physicians in resident training were added; the lone nurse found herself joined by 26 others; there was an addition of 7 psychiatric social workers, 6 psychologists, more than a hundred attendants, and 40 regularly attending physician consultants.

What are the results at Topeka State? In a few short years since the change, the number of patients was reduced from 1,800 to 1,500. A number of supposedly "hopeless" elderly patients, relegated to the back wards of the hospital for many years, are now back in the community, practically resurrected from the dead. This is no miracle. It is vivid proof the job can be done—the recovery of precious human beings through increased appropriations that permit the adequate training of personnel to treat these patients.

There is no question then as to the great benefit the funds from the Mental Health Act have been in the increasing of trained personnel in the field of mental health. The progress is tremendously heartening, but where are we?

IV. Where are we? As encouraging as our progress has been, we must face the facts that we are a long way from our goals. What are those facts?

(1) While the responsibility for the Nation's mental health is the responsibility of every individual in terms of parenthood, community participation, leadership, citizenshp responsiblty, the movement must have professonally trained people. Treatment will always be a responsibility of these trained people. Treatment will always be a responsibility of these trained personnel. On conservative estimates we need 8,000 to 10,000 more psychiatrists. We are currently producing them from all training centers in the United States at the rate of about 400 a year.

(2) We have made modest grants to only 42 of our 79 medical schools, and, as a consequence, many young physicians are graduating with a totally inadequate understanding of the personality and its relationship to physical ill health.

(3) The medical load in the Veterans' Administration hospitals continues to run more than 50 percent of its patients as psychiatric problems; and the need for personnel is acute. The necessity to open more hospitals is anticipated but we can nowhere near adequately staff the psychiatric facilities now in operation.

(4) Our national average ratio of psychiatrist to patient in our State hospitals is about 1 to 250. If you have the unfortunate position of having to share 1 doctor with 249 other patients, you can be sure you are not going to get much attention. (Last official figures available were 1949, when there were 1,907 physicians to 471,200 patients, a ratio of 1 to 260.)

(5) We are currently paying $360,000,000 a year in pensions to veterans suffering from mental illness, plus the $121,000,000 for maintenance of the patients now in Veterans' Administration hospitals.

(6) The military forces have more than 200 vacancies for psychiatrists and to take them from civilian life is literally robbing Peter to pay Paul. On this point however, great progress has been made since World War II. Whereas there were only 3 certified psychiatrists—that means the individuals approved by the National Board of Examiners in this area—in the Army prior to the War, there are now 15. The results in Korea are an indication of the promise in times of conflict if we are given the men to do the job. There, the handful of psychiatrists—one with each division— are handling the psychiatric casualties right at the front lines before they have a chance to freeze into severe neuroses and psychoses. They are returning 70 percent to combat within 2 weeks; of the remaining 30 percent, the vast majority are returning to duty in 4 to 6 weeks; only 5 percent are sent home as psychiatric casualties.

In making these points to indicate our acute personnel shortages, I am not including the crying need for more knowledge—research. I wish, however, to emphasize that the very real bottleneck in our mental health program is the shortage of training personnel, psychiatrists, clinical psychologists, social workers, nurses, adjunctive therapists, aides. Despite our encouraging progress to meet these, we must accept the fact that we have only begun.

(1) We must improve our State hospitals. They remain a blot on our social conscience, housing as they do more than half a million people who have no voice. In far too many instances, they are still "snake pits," where living death is more common than restoration to community living. We discharge about 50 percent of admissions, a third of whom must be readmitted. If we could give early effective treatment, it is probable that 80 to 85 percent of these admissions could be returned to community life as productive citizens. It is reasonable to assume further, that we might need no further hospital buildings if we could develop community clinics for early treatment and really provide adequate care in our hospitals.

But the pressing need is personnel. The job cannot be done without trained staffs. To even meet the staff-patient ratios recommended by the American Psychiatric Association, we need twice the number of psychiatrists that are now in our State hospitals, treble the present quota of graduate nurses, and eight new occupational therapists for every one now on the job.

A key person in our State hospital program is the psychiatric aid or attendant. Along with the curse of understaffing, too many institutional programs have regarded the aid as a high-class janitor although it is he, more than any other person, who lives with and attempts to care for the patient. Not only has he been regarded as "cheap help" and very underpaid in comparison to his responsibility,

but it has been the rare institution that provided any kind of training for him. He has had almost no professional standing although he has probably more to do about the potential recovery or worsening of the patient than anyne but his doctor. With approximately 80,000 aids for our 600,000 patients in mental hospitals, it would seem imperative to create standards and training schools for these people. I would fervently hope the National Institute of Mental Health might be given the money to start a number of pilot projects in this vital area of training.

A second goal—community clinics and guidance centers: The public has become sufficiently enlightened about emotional ill health as to want, with increasing insistence, community clinics, information centers, child guidance facilities, psychiatric wards in general hospitals. A few communities have acquired such facilities; many others are trying to do so. And the justification is very real: the need for early treatment of mental illness; for the treatment of illnesses not requiring hospitalization; advice about marital and family problems; counsel about children, and many other problems. To be sure there are a greatly increased number of psychiatrists in private practice as compared to even 10 years ago, but with hardly an exception they are overloaded with patients. It has been jokingly remarked that getting a date with a psychiatrist is not dissimilar to getting one with your dentist—perhaps he will be able to see you 6 weeks hence.

But the bottleneck again is trained personnel. The psychiatrists simply are not available. The only answer is to augment greatly our training programs. With only 400 newly trained psychiatrists finishing each year to meet a current deficit of 10,000, it will take 20 years to reach the point where we should be right now.

The training grants under the Mental Health Act have been a great impetus but far, far from being adequate. Each year on the council, during my service on it, we had only sufficient moneys to grant about a third of the appeals which we could approve. And at the present time, there are requests amounting to over $2,000,000 that have been approved by the very thoughtful committee who investigated them, which cannot be made for lack of funds. These requests do not include the many institutions that are capable of expanding their program if they had the funds to do so. Many, many applications are terrifically slashed—or even turned down—because of lack of funds. A specific instance: an unendowed training center has a residency training program for approximately 100 psychiatrists. An application toward the financing of this of $100,000, justified with very firm reasons, was whittled to an actual grant of $20,000, a sum not even sufficient for the administration of the program, let alone the employment of additional strong faculty members.

Many institutions could double their programs if money was available. Additional money would enable the opening up of new training schools and hospital residencies. It would permit the training standards of many existing residencies to be greatly improved. This principle applies not only to psychiatric training, but also to the training of social workers, clinical psychologists, adjunctive therapists, and psychiatric aids.

A third goal—looking at the pressing needs in our immediate future, we must develop preventative psychiatry. We need to be able to

apply the technical knowledge gained in this field in such ways as to prevent mental ill health. A beginning has been made—through small groups of psychiatrists working in industry, in educational institutions, in public health, in the military forces. On the basis of the rate of present production of psychiatrists, we will never have enough of this rare category or professionally trained persons to meet even the treatment needs. It is imperative therefore that personnel be trained to go into this field of prevention, about which, to date, we know so little. Again it is the bottleneck of personnel.

Fourth, I want to briefly mention research. Other experts are testifying before you on the need for research in the field of mental health. But my interest in the subject is deep. I cannot look into the future without the recognition of the vast amount of information and skills we should have that at present we do not have. And mental ill health has had so little economic support. There are probably few, if any, psychiatric institutions that have as much as $100,000 a year for research, with the great, great majority having no budget for such. We are justly proud of what has happened in the field of cancer, but by contrast, one cancer institution has an annual budget of $2,000,000. This is a sum that approximates the total amount of money invested in research in mental health for the entire country.

(5) Facilities: America has a vast investment in its physical facilities in the field of mental health. But the great majority of these were built many years ago at a time when we knew little about the nature of the illnesses to be treated. Many of them more nearly resemble jails than hospitals. None of them were built with the plan for education and research. These latter are now the great needs in our battle for better mental health.

The Mental Health Act now authorizes Federal aid for the construction of facilities. If we are to meet the enormous problems created by mental ill health in the country, we need not only personnel and research and State programs, but many of the units carrying on such activities must have economic help to provide physical facilities and research beds. If we are going to meet the total problem of mental illness, governmental support must be forthcoming in this specific area as well.

These remarks, Mr. Chairman and honorable members of this committee, represent an all-too-brief summary of some facts and my opinions about the needs in the field of mental health, particularly the shortage of personnel, and what we could and should do about them. We cannot eradicate mental ill health. There is every reason to believe, however, that we can materially reduce it and greatly improve mental health. To do this requires that we, the planners, must organize a long-range project that will result in a greatly increased number of trained personnel, a much greater volume of tested knowledge through research, and the necessary physical facilities to carry out the program. There are immediate and pressing opportunities for the investment of far larger sums than as yet have been appropriated for these purposes—sums that should pay off in greater happiness and productivity and richness of life.

Mr. Chairman, I count it an honor and a privilege to have had the opportunity to make these remarks to this committee. I accepted it very aware of the great responsibility that I as a professional worker

in this field assumed. I know it is our responsibility to attempt to present our experience and knowledge to you as a basis for your action. It is with strong conviction and deep sincerity that I plead for the clear understanding of the magnitude of this enormous problem of mental illness and prompt and all-out action toward its solution. I know that I bespeak the fervent hopes of a horde of mentally sick people that are in hospitals today, as well as the all-too-few physicians and professional workers in the field of psychiatry. I plead for the ways and means to combat and neutralize the forces in men's minds that lead to broken personalities, broken homes, delinquency, and crime. I plead for a better chance to find the factors that make men suspicious, greedy, dishonest, prejudiced, unhappy.

I have no illusions that Government funds can solve these problems but I am sure that they can go a long way toward providing a more rapid solution. I am sure that this committee will have a great deal to say as to whether we take a major step forward in our fight or whether we must stay stationary, or even, God forbid, go backward.

Mr. FOGARTY. In a field like this, and in other fields of research, it is impossible to stay stationary and accomplish anything. You have to keep on moving ahead all the time to get the answers. You do not think the money we have been appropriating for research and various grants to institutions has been wasted; do you?

Dr. MENNINGER. No; I wish I could say something that would reassure you about my strong conviction that it has been an enormous impetus to go forward.

We simply could not have done it without it. I tried to spell out here the specific progress we have made in this field of training; that is very real.

I wanted to show that we are not near where we have to get to, but to justify the investment we have made, I think, is very easy. We can show that we have accomplished many things.

Mr. FOGARTY. What is an extern?

Dr. MENNINGER. A surgery-medical student in many of our medical schools today, instead of taking a vacation for the summer, works in a hospital as a kind of student, living outside of the institution. As such, he is called an extern. Most of our medical schools used to go just through the 9 months of the year. Now the great majority between the junior and senior years, expect the student as a part of his work to go to some hospital—cardiology, psychiatry, and so forth. Many State hospitals have availed themselves of the opportunity of getting the third- and fourth-year students to serve as externs, as they are called, because they live outside the hospital, instead of the fellow after his graduation from medical school who lives in the hospital and is called an intern.

Mr. FOGARTY. During the last war you had a great deal of experience with men breaking down in the services. We as Members of Congress are faced with some problems of men or women who have been discharged because of a mental breakdown. I know in two or three cases—maybe it is not prevalent—it happened to be the only child in the family and this child apparently had led a very sheltered life.

Is that prevalent in types of families like that, where as a young child the person never got out of the house or away from the parents much?

Dr. MENNINGER. Mr. Fogarty, it would be presumptuous for me to generalize on that kind of a question. One can point out that the only child of the family has a more difficult job in adjusting to sharing his possessions, his love, his interests with other people, than the child who grows up in a family where he had to do that because there were three or four or five or six others.

We assume in many, many instances that this is very easily accomplished, but for some it is not easily accomplished. So the fact that it may have been an only child may have been something of a factor, but it may not have been.

One can generalize that in those families where you had a rich home life and children grew up with a sense of security in relation to their parents and were then able to transfer it to other people—in other words, at an early life learned how to become a part of the group, had in a sense a kind of reservoir of security, if you can call it that, affection—he didn't have to become suspicious or upset by minor rejections or rebuffs. That type fellow always got along much better than the chap who grew up in the family in which the amount of his reservoir of security was limited because of the family situation, because of his relationship to the parents or his ability to give of himself as he grew up among the boys in the neighborhood.

One can only generalize that the family structure has a great deal to do with adjusting to what is a replica of the family structure thereafter, namely, society.

We see a chap who grows up with great hostility toward his father. He would come into the military situation, and automatically, for reasons not justified at all, resent authority. In fact, in any other situation he got into he resented authority. If you would ask him why, to be sure, he could rationalize it. He could bitch about the commanding officer and may have had some basis; but his consistent pattern was to be unable to accept because he and his father never got along. He hated his father.

It doesn't answer your specific question as to how common and frequent an only child broke down in the military situation.

Mr. FOGARTY. It seemed to me anyway that perhaps they were pampered quite a bit all during life and never could do any wrong and never got out of sight of the mother and father.

Dr. MENNINGER. Such fellows always have more difficulty in the military or civilian life. In the military they become sore thumbs.

Mr. FOGARTY. In the particular case I have in mind, the parents can't see why he should be that way. They think they brought him up right. I always felt like saying that I thought they should have gotten him out of the house once in a while.

Dr. MENNINGER. Most of us are parents and do the best we can for our kids. Some turn out well and some do not. We do not understand why. It has a direct relationship to us. There is no doubt about that. I don't like to condemn parents in toto because we all make mistakes with our kids.

Mr. SCHWABE. In support of what Chairman Fogarty said, don't you think that overindulgence at times has been much worse for the child in future years as he grew up than if he had less privileges?

Dr. MENNINGER. Unequivocably; yes.

Mr. SCHWABE. And that overindulgence is frequently a greater problem than underindulgence?

Dr. MENNINGER. In terms of mental health, I suspect it is.

Mr. FOGARTY. You stated it much better than I did.

Mr. SCHWABE. I stated your idea.

Dr. MENNINGER. That is a complicated problem. In trying to understand the psychological factors in the child and in the parent, we cannot help but see that the parent who smothers his child with love is unquestionably handicapping his child. He is inflicting his own hostile feelings on him. He won't admit it, but that is what he is doing by keeping the apron strings tied to the child, handicapping him enormously.

Mr. SCHWABE. The child that doesn't get along in school. He permits him to go to another school. He indulges him by buying him automobiles and giving him trips and overindulges him in every way. Then he wonders why later on he turns out so badly or commits a crime—murder or something.

I have several cases of that kind in mind.

Dr. MENNINGER. That becomes a complicated problem, too, in the kinds of family situation in which there is an alternation of great love and great hostility—neglect and then giving somebody a car. The old principle in any of us to try to bribe our own conscience a little bit by doing a good deed after we have done a bad one.

Some parents do that with their children. They don't have much love for them and they think they can do it either with dollars or with automobiles. Psychologically the kids aren't fooled. He is sure he is a misfit. He expects that from other people.

(Discussion off the record.)

Mr. SCHWABE. I want to ask you this general question. I might say I have known of your works for some 40 years and have been very appreciative of the great service you have rendered in Oklahoma, in Tulsa. We highly value the services and contributions you have made in your field. But I want to know what is the relationship that exists between the Mental Health Institute for which we appropriate directly in Congress on the recommendations of this committee and after hearings before this committee and the institutions similar to that which you conduct and similarly engaged as you are. I would like a frank expression as to what should be done by either you, on the one hand, or by the Institute on the other hand, in order to make the field of research one of more complete harmony and cooperation to effect and accomplish, with even more rapidity and more definitely favorable service to humanity.

What can be done to work this thing out to better advantage for all, especially for the mentally ill, and to prevent—as I am going to ask you a later question—mental illness among such a large segment of our population? Can you name something specific that we can encourage or promote or help you or the Institute encourage or promote to accomplish thorough cooperation, if that is desirable?

Dr. MENNINGER. The specific thing, of course, is that there are many, many areas in which the bottleneck is the wherewithal with which to do the job. I am debating whether to be honest and frank in trying to answer the question because it becomes personal in a sense.

(Discussion off the record.)

Mr. SCHWABE. Doesn't it, after all, come back largely to the home and the early environment of individuals, where perhaps this train-

ing should begin, in order that we might have the most effective preventive action in the field of mental illness?

Dr. MENNINGER. I don't have any question but that the origin of a great majority of our maladjustments begins early in life in our home.

Mr. SCHWABE. What have you to suggest as the best and most effective way to put that training into operation, so that we may have preventive activities in mental illness and salvage a lot of people who otherwise, I am sure you are convinced, will eventually become patients of mental institutions and mentally ill people?

Dr. MENNINGER. I have thought about that a great deal. There are at least five or six areas in which I would like to try to do something.

Mr. SCHWABE. That is constructive, isn't it, more constructive than the therapeutic aspects?

Dr. MENNINGER. Yes. I think we have to get to preventive activities.

The No. 1 place is our homes and how to build more solid, stable homes and teach the children to be able to love in addition to hate, and how our only hope to neutralize hate is to love.

Lots of children never learn to do that. They never learn to give. They never become community-minded children because they do not learn to give of themselves, a thing they have to learn in the early part of their lives.

The second thing is in our school system. I am sure, next to the parents the school teacher has more to do with the character building of the child than anybody else, if for no other reason than the amount of time spent with them. Think of all the handicaps in our school system, underpaid teachers and not the best selection methods. Our disrespect for our own teachers in many instances. What to do about the problem child in school, the child who has reading difficulties, the child who misbehaves. It is not in the light of our knowledge that we use the hickory stick. I am not adverse to the hickory stick. It doesn't do much good except for the person who uses it. It is like calling somebody a name. It doesn't indicate understanding.

We have many, many things that are not a matter of discipline at all. Our children are afraid or timid or fearful or can't socialize. They do not know how to get along with people. Just teaching them the three R's isn't going to teach them to get along with people.

Another big area, I think, on the basis generally of our military experience, would pay off enormously in the field of industry in which our constant difficulties in understanding each other and what it is we really want of each other and have every right to expect of each other causes so much management-labor disputes, the high degree of absenteeism, the number of people in any walk of life, whether it happens to be in an industrial situation or in a community situation, where there are misfits who can cause all kinds of difficulty. It is a little like one bad apple in a barrel. It can spoil a lot of others in close proximity in short order, where the others would not be affected at all if we can provide the emotional first-aid stations, if we ourselves do much more about emotional first aid, as much as we do about physical first aid.

Then I think there is another area that is of increasing importance. That is in the general area of religion. I think religion does so much to help and maintain mental health. Our pastors and our priests have

troubled people come to them all the time, with the result that currently they are seeking help from many of us as to how to recognize when a person is mentally ill, when he needs professional advice. They want to be sure when in their domain they are not overstepping into the field of the psychiatrist.

We have many opportunities there, but we do not have the personnel to follow that up. It is a tremendously important community pillar in this whole philosophy of life, of what is worth while.

I think we can do a great deal in that area.

There is another area of recreation, which I think is an extremely important one, in which what people do with their leisure time has a great deal to do with their mental health.

Mr. SCHWABE. Then the family, the parental influence and role, that of the schools, that of the church or religious field, and the recreational fields, of course, would, generally speaking, constitute the areas in which you think the greatest preventive accomplishments could be attained?

Dr. MENNINGER. Yes, I do.

Mr. SCHWABE. Then go to the therapeutic, without reference to any particular medication or anything of that sort, that has generally been resorted to and must be to a large extent by the profession. Of course, we have seen great accomplishments in cases of alcoholics, with the influence of Alcoholics Anonymous, and in the field of drug addicts.

Now they are apparently going to be able to accomplish something there with addicts. Have you anything to suggest that might be a contribution in a mental anonymous group, so to speak, if we can think of that as a parallel situation?

Dr. MENNINGER. I don't think I would have any answer to your question.

Mr. SCHWABE. Has that been explored?

Dr. MENNINGER. Yes, it has.

Mr. SCHWABE. I hadn't heard. I wanted to be informed.

Dr. MENNINGER. It has been in terms of alumni groups of graduates from mental hospitals. In Chicago, Ill., they have formed a group of alumni of patients from one of the mental hospitals, which has done a great deal of good for the people who participated. It has been a kind of an anchor for many of them.

I don't believe it would work or we can assume that it would work to try to get a group of mentally ill together and just, by association, getting something from it.

Mr. SCHWABE. Don't you do that to some extent in the institutions?

Dr. MENNINGER. Not unless there is professional leadership for it. We do extensively a kind of an approach that we call group therapy, where 6 or 8 or 20 patients are brought together at regular hours under a physician's direction, and they use varying techniques. They may talk about you or you and the physician may talk, and then you get the comments of the rest of the group, or they may discuss a general subject or some symptomatology and its origin, and so forth. Those are short cuts because of lack of manpower. I don't have any doubt that we could do better if we could see each patient alone. But where you have one doctor taking care of 250 patients, one approach he can use is to get 50 together and talk to them about some of these problems.

Mr. SCHWABE. Aren't there benefits to be derived from group association?

Dr. MENNINGER. Yes. One has to delimit that to the kind of groups. I have a very high regard for the Alcoholics Anonymous. They have done a phenomenal job.

Mr. SCHWABE. They have a religious background, too.

Dr. MENNINGER. It is a deep emphasis in their whole program.

Mr. SCHWABE. You do not think that would help in the case of convalescing—may I call it that?—mental patients?

Dr. MENNINGER. I doubt it. The field hasn't been explored very much.

The Alcoholics can focus on a concrete limited area. One of the misconceptions about mental illness is that mentally ill patients are all alike, whereas there are many different types of mentally ill patients, mental illnesses, which are just as different as tuberculosis of the lung and pneumonia of the lung. They are both lung diseases, but their approach, their treatment, their pathology, is very different. You couldn't put the same people in the same sort of regime and expect it to work.

So to bring together who, on the one hand, may have a phobia of high places, to the extent of being unable to get along, with somebody else who has chronic dyspepsia, and a third person who thinks he is Napoleon—to put them together, you are dealing with such different illnesses.

Mr. SCHWABE. Where you have had an opportunity to group those people together, you have had similar disturbances?

Dr. MENNINGER. That is what the principle is in group therapy. They don't try to mix different categories in group therapy. That is what group therapy attempts to do.

Mr. SCHWABE. For instance, a case where they develop paresis, superinduced by syphilis, as most of it is conceded to be.

Dr. MENNINGER. All of it.

Mr. SCHWABE. That group might be thrown together. That is what I am getting at. If they have reached a certain stage of improvement due to the present medical therapy that is employed, might they not be thrown together?

Dr. MENNINGER. No. I will tell you why. Again, you think that maybe that is a homogeneous group. It is far from it. It is a curious fact that in our ignorance—and this is pertinent to this whole research problem—we should not know that there are four standard types of symptomatology in general paresis. There is one type of reaction in which the man thinks he is a multimillionaire. He is jovial. He will write you out a check for a couple of million dollars and be scrubbing the floors at the same time.

Then there is a second type of category that looks like a very severe depression. He is very depressed.

There is a third type of individual whom we speak of as that agitator type. He is not excited in the types of flighty ideas, as the first fellow is, but he is the fellow who says, "That door is hung askew," and he fixes it. He is often combative.

The fourth type of general paresis is the silly, childish, laughable, disintegrated individual, somebody who has had a high school level and has gone back to almost the cradle level.

We can send their brains to the laboratory and, as much as we know about the pathology of general paresis under a microscope, the pathologist cannot tell you which type clinically this brain belonged to.

Yet when you look at these people, they are as different as four kinds of sicknesses can be.

Mr. SCHLAIFER. As was pointed out recently, the fact that penicillin has helped out in syphilis has resulted in a tremendous decrease in the number of paresis patients in mental hospitals.

Mr. SCHWABE. Isn't the number of this class rapidly declining?

Mr. SCHLAIFER. Yes.

Last year it cost the hospitals $40 million less to take care of those types of patients. That is what research has taken care of.

Dr. MENNINGER. That has practically faded out.

Mr. SCHWABE. But the other kind has not faded out in comparison.

Dr. MENNINGER. No.

Mr. BUSBEY. I don't have any questions to ask at this time. I do want to take this opportunity, however, to apologize to Dr. Menninger for having to go out for a few minutes in the middle of his statement. I had a special order to make a speech on the floor and I had to be there to deliver it before the House adjourned. I will read your part of the testimony that I missed with a great deal of interest, I assure you.

That is all, Mr. Chairman .

Mr. DENTON. Let me ask one question: If the veterans' hospitals had the same rate of discharge you have at your hospital, have you made any computation of how much less it would cost the Government?

Dr. MENNINGER. No. But it would be a lot less.

In the Topeka State Hospital we figured at the very limited budget at which they were functioning, which fortunately they have now doubled, the cost per patient has gone up at least twice since we started the training program. The turn-out of patients we have discharged amounts to 300 patients, which at a couple of thousand dollars a year at a minimum, and probably, if you were in private industry and you had to pay for facilities and everything else, it would be $4,000 or $5,000, having gotten rid of 300 of them in 3 years, that in itself is more than the appropriation. The turn-over of the Topeka State Hospital is now more than twice as large as it was before we had this staff.

Economically it is paying enormous dividends. That is true, to say nothing, of course, of the thing I am really interested in, and that is the families and the people who are having fun again, living, and are not in death cells.

It is really a thrilling thing to see the change in attitude of the people in this hospital. It is hopeful. People get well there now whereas before it was really a "snake pit."

Mr. SCHWABE. Whereas formerly, a hundred or 200 years ago, they were considered hopeless, isn't that true?

Dr. MENNINGER. Yes. They never received any medical attention, never received any treatment. I wish we had those figures. I don't know how much they would prove. They would show spectacular savings.

Mr. FOGARTY. Do you have any further statement to make?

Dr. MENNINGER. Thank you very much for letting me come.

Mr. FOGARTY. We appreciate your coming.

Mr. SCHLAIFER. I want to say one thing on behalf of my colleagues and myself. Firstly, this committee should be very proud and pleased with one thing. All the questions that Mr. Schwabe asked Dr. Menninger are included in the activities of mental health. Everyone of those phases has a research or training program going on. It is just the question of how much we can expand and enlarge the funds to put those things into effect.

We want to thank you for listening to us, as you do so carefully and so well each time, and I am very proud to come before this committee to talk as a citizen about a subject that is as important as this one, and the fact that this committee has taken so much an interest and has done such an outstanding job over the years.

You should know the citizens who pressure you can also say, "Thank you for the job you have done and what you will do in the future."

Mr. FOGARTY. Thank you. We appreciate your coming down.

We hope all the members of the Congress will read these hearings because they will learn something if they do.

We stand adjourned until 10 o'clock tomorrow morning.

(The following summary information was submitted for the record at the committee's suggestion. Additional detail information was submitted for the use of the committee members.)

WHAT IS THE MENTAL HEALTH SITUATION IN THE UNITED STATES TODAY AND HOW DOES IT RELATE TO OUR NATIONAL DEFENSE?

I. How many people in the United States are suffering from some form of mental illness?

1. About 8,500,000 people in the United States are suffering from some form of mental illness (1).

(*a*) This means that more than 1 in every 18 persons is now suffering from some form of mental illness.

II. What was the military manpower loss during World War II from mental illness?

1. *Rejection before induction.*—About 1,846,000, or 38 percent of the 5,000,000 men rejected before induction, were rejected for neuropsychiatric disorders (2).

(*a*) About 12 percent, or 1 out of 8, of the 15,000,000 men examined were rejected for neuropsychiatric reasons (2).

2. *Discharge after induction.*—Of the men discharged for medical disability after induction, about 387,000 (or 37 percent of Army medical discharges) were discharged from the Army, and 76,621 (or 32.4 percent of Navy medical discharges) were discharged from the Navy for neuropsychiatric reasons (2), (3).

(*a*) This means that more than 1 out of 3 men medically discharged from the Armed Forces were discharged for neuropsychiatric reasons.

(*b*) This is exclusive of the 163,000 Army men and 91,563 Navy men discharged administratively for such reasons as psychopathic personality, mental deficiency, drug addiction, or homosexuality (2), (3).

III. How many Army divisions were lost due to mental illness in World War II?

1. The total manpower loss from mental illness (2,564,184) was—

(*a*) Sufficient to man 177 Army infantry divisions. (World War II division strength, 14,477) (4).

(*b*) Larger than the total number of men the Army sent to the Pacific theater of operations during World War II (2,171,511) (4).

IV. What is the civilian economic loss due to mental illness and what does it mean in terms of military production?

1. At least 1,000,000 man-years are lost each year (37).

2. $3,024,000,000 was lost in 1950 in productivity (37), (38).

This would purchase 40,320,000 Garand rifles at $75 each, or 16,525 pursuit planes at $183,000 each, or 15,120 medium tanks at $200,000 each, or 40 airborne divisions' equipment at about $75,000,000 each.

V. What is the need for psychiatric care in the United States?

1. One out of every ten persons will need psychiatric care at some time during his life (5).

(*a*) This means that about 15,400,000 persons now living in the United States will require psychiatric care at some time (5).

2. One out of every eighteen persons will spend some part of his life in a mental hospital (6).

(*a*) This means that about 8,555,000 people now living in the United States will be hospitalized for mental illness at one time or another.

VI. How many people need hospitalization for mental illness?

1. Slightly more than one out of every two hospital beds in the United States is occupied by a mental patient (7).

2. Six hundred and eighty-seven thousand five hundred and sixty-seven, or 55 percent of the 1,242,777 patients comprising the average daily hospital census in 1950 were patients in nervous and mental hospitals (7).

3. Three hundred and seven thousand one hundred and sixty-five patients were admitted to mental hospitals in 1950 (7); first admissions to public mental hospitals alone now exceed 200,000 annually (8); 74 percent of all State mental hospitals are overcrowded (36).

4. Prewar studies showed that at any time there are about 1,000,000 persons sufficiently disabled by mental illness to warrant hospitalization, although only a little more than 650,000 get it in any one year (9).

VII. How many people are in tax-supported mental hospitals?

1. Of the 931,461 patients comprising the total average daily hospital census of tax-supported hospitals in 1950, 670,578, or 72 percent were patients in tax-supported mental hospitals (7).

2. Ninety-seven percent of all mental patients are in public hospitals (7). Only about 3 percent of mental patients are cared for in private hospitals (7).

VIII. What is the extent of minor mental illness?

1. About 50 percent of general practitioners' patients suffer from some form of mental illness (36).

2. About 30 percent of hospitalized general medical and surgical cases are more or less neurotic (12).

IX. What is the cost of mental illness in the United States today?

1. *Cost of maintaining patients alone.*—In 1950 the cost of maintaining patients in mental hospitals was $551 million, of which $506 million was public funds ((14) and appendix I).

(*a*) Out of the $506 million of public funds, the Veterans' Administration alone spent $121,600,000 in 1950 for maintenance of its mental patients ((14) and appendix I).

(*b*) In addition to (*a*) above, the Veterans' Administration pays almost $360 million annually in pensions to veterans suffering from mental illness (27), compared with $724,617 spent for research in mental health by the same organization in 1950 (16).

2. *Cost of construction.*—About $186 million was spent in 1950 for construction of facilities in mental hospitals in the United States ((14) and appendix I).

3. *Total cost of mental illness in the United States.*—Summing up the foregoing items, the total cost of mental illness to our country in a year now amounts to about $1,097,000,000, excluding loss of earnings and productivity.

4. *Total cost per patient of mental illness in the United States.*—The average cost per mental health patient for his entire stay of 8 years (the average) in a State mental hospital amounts to $5,600. The average per capita cost per year per patient in a State mental hospital is $700 (39).

X. How many hospitals for mental disease are there in the United States?

1. About 579 hospitals, with a capacity of 711,921 beds (7).

2. There is an immediate need for 326,065 more beds for mentally ill patients (17).

3. As a group, the mental hospitals had 49 percent of the bed capacity, but only 1.8 percent of total hospital admissions for all types of illness in 1950 in all registered hospitals. Mental hospitals had 55.3 percent of the total average daily census in 1950 reported in all registered hospitals (7).

XI. How many clinics for mental disease are there in the United States?

1. In 1950, about 1,228 clinics, including both part- and full-time clinics, 60 percent of which are State-, county-, or city-sponsored; 2 percent court-sponsored; 5 percent school-sponsored; 6 percent Veterans' Administration-sponsored. Remaining 27 percent is privately sponsored (18).

(*a*) Three States are without a single community psychiatric clinic of any type; two others have only one each (18); and there are vast areas in other States where no psychiatric help is available (1).

(*b*) At least 1,500 full-time community clinics are needed (19).

XII. How much is the United States Public Health Service spending for research to prevent and cure mental illness?

1. For the fiscal year beginning July 1, 1951, Congress has made available to the National Institute of Mental Health about $2,496,000 for research, including research fellowships (21).

(*a*) On the basis of 687,567 (7) patients in mental and nervous hospitals, this means that the United States Public Health Service is spending only about $3.62 per year for research for new treatments and cures for each hospitalized case.

(*b*) In contrast, the Department of Agriculture spent in 1951 $74,218,974 for research on control and cure of plant and animal diseases. This includes $40,566,197 for the eradication of foot and mouth disease (22).

(*c*) Only $256,000 was spent for research fellowships in mental health (21).

2. In contrast to this, the people of the United States spent about $4,409,000,000 for tobacco products and smoking supplies in 1950 (20).

XIII. How much is the United States Public Health Service spending for establishment of mental health clinics and services?

1. $3,100,000 has been allotted for grants-in-aid to States for the fiscal year beginning July 1, 1951 (21).

(*a*) These funds are to be matched by State funds at the rate of 50 cents for each Federal dollar (23).

XIV. How much is being spent for research on mental health in both private and public institutions and clinics in the United States?

1. Approximately $6,229,454 is spent, divided approximately as follows:

(*a*) Public funds:		
i. National Institute of Mental Health (U. S. Public Health Service)	$2,496,000	(21)
ii. Veterans' Administration (fiscal year 1950)	724,617	(16)
iii. Other public funds (latest available figure, 1947) approximately	2,249,516	(24)
Total public funds	5,470,133	
(*b*) Private funds:		
i. National Association for Mental Health, 1950	42,426	(24)
ii. Other private funds (latest available figure, 1947) approximately	716,895	(24)
Total private funds	759,321	
Total all funds	6,229,454	

2. On the basis of 687,567 (7) patients in mental and nervous hospitals in 1950, this would indicate that the amount spent for research per individual hospital case, employing both private and public funds, is approximately $9.06.

(*a*) This figure compares with $94 per patient for research in infantile paralysis (25).

3. In contrast, the Nation spent $8,760,000,000 for alcoholic beverages alone in 1950 (26), an average of $58.40 annually for each man, woman, and child.

4. In 1949, 21 States had no research program of any kind in their State mental hospitals (36).

XV. In how many institutions in the United States is research in this field being conducted?

1. Results of a 1947 poll of mental institutions, nervous hospitals, medical schools, and universities, etc., show that there are about 161 of this institutions that have some research facilities and are engaged in some research in one or more of the phases of mental illness (24).

(*a*) About 41 percent, or $2,534,896 of the approximate total of $6,229,454, was being spent by 20 institutions throughout the country. Of these (24)—

3 are supported by Federal Government;
7 are supported by State governments;
10 are privately supported.

(1) Of this $2,534,896—

$2,089,262, or 82 percent, came from public sources;
$445,634, or 18 percent, came from private sources.

XVI. Do the 687,567 patients in mental hospitals receive adequate care?

1. No. The median cost per resident patient in State mental hospitals in the United States was only $636 per year (36), or $1.74 per day in 1949, and $1.26 per day in 1942 (28). Wisconsin was high with $1,089; Tennessee was low with $324 (36).

(*a*) These figures compare with the 1944 standards (latest available) of the American Psychiatric Association of $1,825 per patient per year, or $5 per day; and $912.50 per year, or $2.50 per day, per patient for chronic cases (29).

(*b*) In contrast, in New York City in 1950, the average cost per ward patient per day in a general hospital was about $11.90 (30).

(*c*) The average figure on a national basis for the cost of patient care in general and special (i.e. short-term) hospitals as of June 1951 is as follows: $1,819.13 per bed per year; $4.98 per bed per day; $6.78 per patient day (10).

XVII. What are the standards for care of mental patients?

1. The latest approved American Psychiatric Association standards (1944) for care are (1):

(*a*) For psychiatrists: Observation and acutely ill patients, 1 psychiatrist to each 30 patients; reeducation service 1 to 75; convalescent 1 to 50; continuous treatment and senile 1 to 200.

(*b*) For nurses: Observation and acutely ill patients, 1 nurse to 4 patients; convalescent 1 to 10; reeducation service 1 to 25; continuous treatment and senile 1 to 40 or 50.

(*c*) For the Army: 1 psychiatrist to each 50 patients.

XVIII. What are the actual conditions of care in mental hospitals compared with approved standards?

1. The actual average ratio in mental hospitals was 1 physician to each 332 patients (36) and 1 graduate nurse to each 133 patients (11), (15).

XIX. How many doctors and other medical personnel specialize in the care of mental patients?

1. In 1951 there were 6,481 psychiatrists in the United States who were members of the American Psychiatric Association, many of whom are administrators or retired (31). 3,780 psychiatrists hold diplomas from the American Board of Psychiatry and Neurology, though some of these are not members of the American Psychiatric Association (32).

(*a*) As of 1951, 15,000 more psychiatrists are needed in the United States (33).

2. There are approximately 8,500 graduate nurses specializing in psychiatry in the United States (8); 12,275 practical nurses and 79,208 attendants (7); and 1,744 registered psychiatric social workers (34).

(*a*) The National League of Nursing Education estimates our need is at least 47,000 psychiatric nurses (35) or almost six times the number we now have.

(*b*) Of the 1,106 State accredited nursing schools in this country, only 34 are located in mental hospitals (7). Two States have no training facilities in psychiatric nursing (13).

3. There are approximately 1,200 trained clinical psychologists and at least 10,000 more needed (8).

4. It has been estimated that 12,000 new psychiatric social workers are needed in this country (8).

5. In 1949, six States had no teaching or in-service training programs of any description in their State mental hospitals (36).

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(13) The American Journal of Nursing, Sept. 1951: p. 584.
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(15) Dr. Hyman Goldstein, Biometrics Branch, National Institute of Mental Health, Bethesda, Md. December 19, 1951.
(16) Letter dated January 22, 1952, from E. H. Cushing, M. D., Asst. Medical Director for Research and Education, Veterans' Administration. Research in Mental Health: $724,617 in fiscal year 1950.
(17) Journal of the American Medical Assn., Oct. 14, 1950, Vol. 144, No. 7, p. 556.
(18) "Public Health Reports," Vol. 66, No. 48, Nov. 30, 1951—U. S. Public Health Service publication; pp. 1559–1572.
(19) Dr. George Stevenson, Medical Director, National Assn. for Mental Health, in personal interview. "At least 1,500 full-time community clinics should be planned for on the basis of one clinic to each 100,000 people, which has proved practical. This does not entirely fill the need."
(20) Survey of Current Business, July 1951, National Income Number, U. S. Dept. of Commerce, p. 193.
(21) U. S. Public Health Service, Division of Finance:

National Institute of Mental Health, 1952 current budget

Obligational cash:	
Intramural research	$800,000
Research projects (grants-in-aid)	1,440,000
Research fellowships	256,000
Trainees	1,350,000
Teaching grants	2,023,000
Grants-in-aid to States	3,100,000
Other	949,987
Total	9,918,987
Liquidation cash (for payment of contracts made in prior years): Teaching grants	600,000
Total obligational and liquidation cash	10,518,987

(22) Budget of the United States, fiscal year ending June 30, 1952.
(23) National Mental Health Act, 1946.

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[2] From "Challenge to Psychiatry," a paper compiled by Dr. Wm. C. Menninger.

(24) See Appendix II and III: Survey of Research in Mental Institutions, National Committee for Mental Hygiene, March 1948. Public Funds: $2,249,516. Private Funds: $716,895. Also, letter, May 15, 1951, from Helen M. Towey, National Association for Mental Health.
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(28) Dr. Wm. C. Menninger quoting from "Patients in Mental Institutions, 1942," Bureau of the Census, 1944.
(29) National Committee for Mental Hygiene, 1947 Annual Report, p. 11.
(30) Letter dated April 9, 1951, from Marta Fraenkel, M. D., Director, Medical Statistics and Records Service, Department of Hospitals, City of New York.
(31) American Psychiatric Association membership as of December 1951, per Austin Davies, Executive Assistant.
(32) Letter dated December 27, 1951, from Dr. David A. Boyd, Jr., Secretary-Treasurer, American Board of Psychiatry and Neurology, Rochester, Minn.
(33) Dr. George Stevenson, Medical Director, National Association for Mental Health, telephone conversation, Dec. 28, 1951.
(34) Membership of American Association of Psychiatric Social Workers, Jan. 1, 1952, per Anne W. Aldridge, Executive Director, Jan. 4, 1952.
(35) Dr. Wm. C. Menninger quoting National League of Nursing Education, 1945. Pamphlet on "New Frontiers in Psychiatric Nursing." [2]
(36) "The Mental Health Programs of the 48 States," Council of State Governments, published 1950; pp. 40, 114, 128, 134, 295, 329.
(37) America's Health—A Report to the Nation by The National Health Assembly, p. 185. Published by Harper & Brothers, New York, 1949.
(38) National Income Supplement, Survey of Current Business 1951, published by U. S. Dept. of Commerce; Table 26. Average individual earning 1950: $3,024.
(39) Dr. Robert Felix, Director, National Institute for Mental Health, Bethesda, Md.

Total maintenance costs increased an average of 57.2 million dollars each year from 1945 to 1950, an increase of 286 million per annum in 5 years.

Tax-supported maintenance costs increased an average of 53.8 million dollars each year from 1945 to 1950, an increase of 269 million per annum in 5 years.

Appendix I. Cost of Hospital Care for the Mentally Ill in the United States

Maintenance expenditures

[In millions of dollars]

Year	State	Veterans (*a*)	Other Federal	Private	Total
1950	(*b*) $360.4	$121.6	(*c*) $24	(*d*) $45	$551
1949	(*e*) 325.9	114.6	24	(*d*) 43	487
1948	302.0	99.0	.....	(*d*) 39	440
1947	264.0	96.0	.....	35	395
1946	206.0	55.0	.....	31	292
1945	180.0	33.0	.....	28	241

Capital construction expenditures

[In millions of dollars]

Year	State (*f*)	Veterans (*g*)	Total (*h*)
1950	[1] $143.1	$42.9	$186
1949	[2] 64.0	(3)	64

[1] 37 States.
[2] 43 States.
[3] Not available.

Total cost of hospital care for the mentally ill in the United States

Year	Private maintenance	Tax supported		Grand total
		Maintenance	Capital construction	
1950	$45	(j) $506	$186	(i) $737
1949	43	(j) 444	64	551
1948	39	(k) 401	(l) 46	486

REFERENCES TO APPENDIX I

(*a*) Information received from Veterans' Administration. All figures based on fiscal year July 1 to June 30. This figure is low by an undetermined amount inasmuch as it does not include some neurophychiatric patients in veterans' general hospitals.

(*b*) Using 1948 amounts for Arizona, Georgia, Indiana, Kentucky, Maine, Minnesota, Mississippi, North Dakota, Oklahoma, Tennessee, West Virginia, as given in "Mental Health Statistics" June 1950, page 12, National Institute of Mental Health, United States Public Health Service, Bethesda, Md. (See also p. 106 of The Mental Health Programs of the Forty-eight States, the Council of State Governments.)

(*c*) Computed maintenance cost of mental patients in hospitals operated by the Army, Air Force, Navy, United States Public Health Service, Bureau of Indian Affairs, and miscellaneous "Federal" bureaus.

The hospital number, Journal of the American Medical Association 1950, gives the total Federal census, 1949, for nervous and mental patients as 59,743. Information from the Veterans' Administration gives the 1949 veterans' neuropsychiatric census at 47,787. Thus mental patients cared for by the remaining groups of Federal agencies mentioned above, amounted to 11,956.

Annual per capita cost for neuropsychiatric patients cared for in veterans' neuropsychiatric hospitals was $2,000, in 1949, a per diem of $6.58. Mental patients probably cost the other Federal agencies an amount higher than the per diem in veterans' neuropsychiatric hospitals, inasmuch as the numbers are not large enough to set up separate mental hospitals with lower costs. To use the per capita cost of the Veterans' Bureau, $2,000 a year, would therefore produce a conservative computation. On this basis the cost of hospitalizing the 11,956 mental patients in other Federal agencies would be $23,912,000 in 1949.

In the absence of statistics for 1950, the 1949 figure has been used in the above table, for the year.

(*d*) Statistics not available—estimates here given based on figures for 1945, 1946, and 1947, using tabulation of data for those hospitals reporting information on operating costs for the American Hospital Association Directory. A small number of private hospitals are omitted from this computation.

(*e*) Using 1948 amounts for Arizona, Indiana, Mississippi, Tennessee. See Mental Health Statistics, page 12, and The Mental Health Programs of the Forty-eight States, page 106, cited above.

(*f*) See page 106, The Mental Health Programs of the Forty-eight States, A Report of the Governor's Conference, by the Council of State Governments, 1950.

(*g*) Information received from Veterans' Administration, December 1950.

(*h*) Construction statistics for private hospitals not available, but the number of such hospitals increased slightly from 1949 to 1950.

(*i*) The over-all figure of $737 million for cost of mental hospital care is a conservative amount because:

(1) Construction costs for 1950 from 11 States are not available and would raise the figure by an unknown amount, probably around $5 million.

(2) 1948 maintenance costs from 11 States were used in the 1950 figure. 1950 actual statistics, if available, would raise the figure here given by an unknown amount, probably several million dollars.

(*j*) Includes "Other Federal" as well as veterans, that is, Army, Air Force, Navy, United States Public Health Service, merchant marine, and drug addiction. Bureau of Indian Affairs, miscellaneous other Federal Government hospitals.

(*k*) Includes veterans, but does not include "Other Federal."

(*l*) Does not include veterans, or "Other Federal," or private construction, but only that for State hospitals as given on page 12, Mental Health Statistics, June 1950, National Institute of Mental Health, United States Public Health Service, Bethesda, Md.

Appendix II. Results of a Questionnaire Sent Out by the National Committee for Mental Hygiene, 1947

Institutions responsible for major part of research in mental health in United States

Institution	Ownership or control	Total research funds	Research funds from public sources	Research funds from private sources
$500,000 or more:				
Illinois Neuropsychiatric Institute and Department of Public Welfare, Chicago.	State	$660,538	$660,538	
New York State Psychiatric Institute and Columbia University Department of Psychiatry, New York City.	do	806,961	797,477	$9,484
$100,000 or more:				
Department of the Army, Neuropsychiatric Consultants Division, Washington, D. C.	Federal	154,115	154,115	
The Menninger Foundation, Topeka, Kans.	Private	115,395.12	61,595.12	53,800
$50,000 or more:				
Johns Hopkins University, Henry Phipps Psychiatric Clinic, Baltimore, Md.	do	91,250.00	35,000.00	56,250
Yerkes Laboratories of Primate Behavior, New Haven, Conn., and Orange Park, Fla.	do	72,000.00		72,000
Washington School of Psychiatry, Washington, D. C.	do	66,100.00	63,100.00	3,000
Worcester Foundation for Experimental Biology, Shrewsbury, Mass.	do	60,000.00	30,000.00	30,000
Massachusetts General Hospital, psychopathic department, Boston, Mass.	do	60,000.00	40,000.00	20,000
Worcester State Hospital, Worcester, Mass.	State	55,000.00	55,000.00	
Payne Whitney Psychiatric Clinic (New York Hospital), New York City.	Private	50,000.00		50,000
Montefiore Hospital, Bronx, N. Y.	do	50,000.00		50,000
$25,000 or more:				
University of Minnesota, department of psychiatry and neurology, Minneapolis, Minn.	State	49,780.87	49,780.87	
University of Texas medical branch, Galveston Psychopathic Hospital, Galveston, Tex.	do	43,485.00	33,885.00	9,600
Institute for Juvenile Research, Chicago, Ill.	do	40,000.00	40,000.00	
U. S. Public Health Service Hospital, Lexington, Ky.	Federal	39,771.52	39,771.52	
Michael Reese Hospital, Chicago, Ill.	Private	35,000.00		35,000
Boston Psychopathic Hospital, Boston, Mass.	State	31,500.00		31,500
Washington University School of Medicine, St. Louis, Mo.	Private	29,000.00	4,000.00	25,000
Veterans' Administration Hospital, Bronx, N. Y.	Federal	25,000.00	25,000.00	
Total		2,534,896.51	2,089,262.51	445,634

APPENDIX III. SURVEY OF RESEARCH IN MENTAL INSTITUTIONS AND AGENCIES

Replies received to date

Number of institutions and agencies reporting money available for research	69
Total money for research reported	$2,966,411
Private funds	$716,895
Public funds	$2,249,516
Total questionnaires sent	709
Returned by post office for various reasons	15
Net total sent	694
Replies received to date (56 percent response)	389
Of these, 25 indicated that questionnaire did not apply to their institutions	25
Usable replies	364

Of the 364 usable replies:

161 (44.2 percent) reported money being spent on research and/or listed specific projects

59 (16.2 percent) reported no money being spent on research, and no research going on, but indicated interest or need for research, if money, personnel, etc., were available

144 (39.6 percent) reported no money and no research projects

Of the 161 reporting money and/or research projects: 69 reported specific amounts of money available annually for research. This is 18.9 percent of the usable replies received.

THURSDAY, FEBRUARY 21, 1952.

NATIONAL HEART INSTITUTE

WITNESSES

DR. T. DUCKETT JONES, VICE PRESIDENT OF THE AMERICAN HEART ASSOCIATION

DR. LOUIS KATZ, PRESIDENT, AMERICAN HEART ASSOCIATION

DR. BRIAN BLADES, PROFESSOR OF HEART SURGERY, GEORGE WASHINGTON UNIVERSITY

Mr. FOGARTY. The committee will come to order.

The committee has before it this morning Dr. T. Duckett Jones, vice president of the American Heart Association; Dr. Louis Katz, president of the American Heart Association, and Dr. Brian Blades, professor of heart surgery, George Washington University.

Dr. Paul White of Boston, executive director of the National Advisory Heart Council, was to appear here, but the information we had given him earlier was that we would start this part of the hearings on Monday. The committee had to postpone them until Wednesday, and he had made other plans and was not able to stay in Washington.

However, he did pay me a visit on Monday morning and left with me a statement that he would have made on Monday to the committee, and I am going to ask that that statement of Dr. Paul White be included at this point in the record.

95263—52——18

(The statement above referred to is as follows:)

STATEMENT OF DR. PAUL WHITE

It is evident that we need specific recommendations and advice and not generalizations about the health of the country and the need of doing something about it: hence I am listing such recommendations and opinions under several headings.

1. *The relationship of public and of private support of medical research.*—The first point is one that you and many others may quite rightly be interested in; namely, the possibility that we doctors in our appeal for medical research and teaching funds are going to and relying more and more on Uncle Sam and the public purse with neglect of continued enlistment of private support and initiative. It is true that some of the larger institutional, foundation, and personal supporters of research of the past are no longer able to continue their level of support, but this is more than compensated for by an increase of "smaller" donors of all sorts. Thus, the American Heart Association, the largest private enterprise in this field in the country, has multipled manyfold its allocation of funds for cardiovascular research during the past few years. The same is true of many local groups and of my own private patients, for example. It is the desire of most, if not all, of us to continue to stimulate private initiative and support for medical research in the future and not to build up a preponderant colossus in Washington and Bethesda.

The truth remains, however, that the sum of all the funds, both private and public, now available for cardiovascular research, and I am sure for other fields of medical endeavor, too, is far too small to carry out what needs urgently to be done. We of the National Advisory Heart Council, an independent body of private citizens advising the National Heart Institute, are sure of this, because we have visited medical schools and hospitals where such research is in progress or contemplated widely throughout the country. A recent inquiry of three medical schools, one in the West, one in the South, and one in the East, has revealed the fact that twice as much good cardiovascular research can be carried out efficiently at those schools as is now being done, provided more funds can be allocated from one source or another to support such research and here and there to improve and to build laboratories. It is my own personal estimate that the private support of cardiovascular research throughout the country is still twice that of government support. It is difficult to obtain exact figures because of the many small private funds; for example, my own Cardiac Research Fund at the Massachusetts General Hospital has, during the last 25 years, supported much of the clinical research in this field at that institution which I feel quite sure has been well worth while. Yet that research fund has not been actually listed in estimates of amounts of money raised for such a purpose. It has had a balance through the years of $10,000 to $12,000 constantly with an expenditure of about that much each year. It has been supported mainly by my own private patients and by those of some of my associates in the hospital. I am sure that there are a great many other smaller funds actively at work throughout the United States. The figuring in the past has included the amounts donated by associations and foundations such as the American Heart Association, the Commonwealth Fund, and the life-insurance companies, and has not taken into consideration many other sources of private support.

I would add at this point the observation that there is the most excellent cooperation between public and private programs now in the process of being coordinated. For example, several members of the National Advisory Heart Council, private citizens aiding the National Heart Institute of the United States Public Health Service, have been and are members and indeed past presidents of the main private organization dealing with heart disease in this country; namely, the American Heart Association.

2. *Multiplicity of appeals.*—The next subject of importance concerns the multiplicity of appeals from the various Institutes and doctors interested in different diseases. There seems to be, I am sure, some confusion about this in the minds of the public, of Congress, and of the Bureau of the Budget and, as a matter of fact, sometimes of the medical profession at large. This confusion is to a certain extent quite justified and readily understood because of the failure of our groups in the past to present adequate explanations of such multiple appeals. It has seemed on occasion that there is actually competition between the Institutes or at least between the groups of doctors who are pleading for funds, suggesting that one disease, for example, is more important than another and should have

more money allocated than for the others. The time has undoubtedly come for a review and revision of this difficulty. In the past and even now and perhaps for a while longer it has been very important to present the individual problems and needed advances with respect to the diseases of the specific parts of the body. Our knowledge and recognition of our ignorance about diseases related to particular organs or systems have grown to such an extent that time is required for adequate presentation and education, both medical and lay, which can best be done by groups and individuals who are specialists in their respective fields.

There is no desire on the part of any group to minimize the importance of the disease of other parts of the body despite occasional appearance to the contrary. Actually there is hearty accord among all the specialists in wanting "to put the body together again" and to present the problem as a whole with the interrelationships which are very important. The time is coming for that now and it may be best for us doctors to change somewhat our presentations in the future. We at least know the problem and will do the best we can to help you and the public at large to understand and solve it. In any community today it is beginning to be disturbing to the citizen to be faced week after week through the year with drives by the medical groups, first for cancer, then for heart, then for polio, etc. We need the best reorganization possible to get over this hurdle, but there would have been the hazard earlier of being too diffuse and general in our observations about hazards to health unless we had gone specifically into the various hazards.

Some of the newer Institutes—for example, that of Mental Health—will be coming up with more and more research needs and quite rightly. I, as a heart specialist, am sure that an infinite amount of research is needed in the mental field and would not begrudge the allocation of a considerable proportion of funds for that purpose. On the other hand, such funds should not be taken from other needed areas. All the problems must be attacked simultaneously and as soon as possible. The speed with which they can be attacked depends, of course, somewhat on the available personnel but there are a lot of young and middle-aged men and women in medicine today who are eager, ready, and able to spend years in such research if they have adequate support for themselves and their growing families and do not have to divert their attention to practice and teaching after having received excellent early training in research. Such is a great waste of brains and money. Thus, in conclusion on this question, it is evidently time to begin to integrate various medical appeals and budgets.

3. *Urgent need of construction of medical research laboratories.*—One of the most urgent needs of all is that of more space and cover for laboratory and clinical research in the field of heart disease and in other medical fields too. As I and others have gone about the country we have seen research institutes or sections of buildings connected with hospitals and medical schools in the process of construction or planned without adequate space for certain endeavors, although there are people available who could work in them. Such space—that is, for laboratories and small research wards—is absolutely essential for the best work and sometimes for any work at all. The lack of building during the past 10 years or more is now being seriously felt. We have begged for funds for construction of laboratories every year for the last 4 years since the National Heart Institute was established by act of Congress with the request to us in that act to make sure that proper facilities would be forthcoming. It is our obligation to heed this request of Congress and of the Government, and we know that it is rightly asked. Yet, except for the relatively small sum for construction the first year, we have received no funds for such construction since then, on the plea of poverty. Meanwhile, however, hospitals have been constructed here and there throughout the country by Government funds, hospitals for the care of patients supplying thousands of more beds to take care of people, many of whose diseases should be preventable so that the beds would not be needed eventually if medical research could be more actively supported. One medical research laboratory doing good work may easily cancel out the need of a good many hospitals with thousands of beds now actually being constructed. It seems to all of us on the Council a very short-sighted policy to continue to build hospitals for the bed care of patients, spending millions of dollars in such construction and care without realization of the importance of spending at least some money for laboratory and research ward construction.

My own experience of 30 to 40 years ago of having taken care of many infants with dysentery, and children and adults with typhoid fever with a fairly high mortality, has clearly demonstrated to me that in the long run prevention of disease is more important than the routine care of diseased individuals. Now-

adays infantile dysentery and typhoid are quite rare and they used to be very common. The same thing may hold true with respect to many of the disabilities of young, middle-aged, and older patients today who are being supported for days, weeks, and months in hospitals, and who might not need hospital care at all if we could spend more time in research on their diseases. My colleagues, and many businessmen as well, have felt very strongly about this, as do I, and they have emphasized the huge amounts of money that can be saved for the Government and public if we pay attention to this point. As Mr. Ben May of Mobile recently wrote me—and I quote him—"We are not asking that the country give anything to medical research. We state that medical research has already saved our country so many lives and so much money that we only plead for the return of part of the savings or profits into the 'kitty' so as to obtain monetary savings for our economy and a happier life for our citizens." Dr. Irving Wright of New York has stated "The saving of two beds in each county of the country (there are about 3,000 counties) would give the following total annual saving:

"3,000 (number of counties) multiplied by 2 (beds) multiplied by $12 (average daily cost of hospital bed) multiplied by 365 (days in year) equals $26,280,000 (an enormous total annual saving). This could continue into perpetuity." Hence every bed we can save means a great deal and more medical research laboratories would aim to do this very thing. One might add that certainly more than two beds per year per county have been saved as the result of several cardiovascular advances within the last decade, for example, conditions of congenital heart disease, subacute bacterial endocarditis, thrombophlebitis, etc. Thus we plead for the allocation of $4,000,000 obligational cash and $14,000,000 contract authority for cardiovascular research laboratory construction for the fiscal year 1953.

4. *Availability of basic scientists.*—The problem raised about the actual availability of the so-called basic scientists in physics, chemistry, biology, and physiology and who are not actually in the medical profession but who may be utilizable for research is certainly a very important one and not yet answered. Efficient workers in these basic fields are still too few in number but they are increasing and we are making every effort to render more and more available. They are, of course, being trained at the universities and institutions now, but in the development of the health problems of the various institutes of the Public Health Service this problem is one that is being faced squarely. We believe that it is still possible with the present supply of such fundamental workers to increase and even double the amount of important medical research now going on.

5. *Need of stimulation of parallel social and economic and educational advances.*—Various persons have been critical, and rightly so, of the relatively narrow medical program in the total world outlook. We, however, and I am sure that I can speak for others beside myself, are cognizant of the fact that the doctors must work hand in hand with those making advances and doing research in the social, economic, and educational fields. Medical progress alone is not the answer; in fact, medical progress we know is much aided by the improvements in the way of life, in up-to-date tilling of the soil, in housing, and in many other endeavors. It is true, I think, that medical progress has gone faster than that of the social scientists of whom there are far too few. We recognize that we should perhaps take the lead in helping to stimulate such socioeconomic investigation and advances in the field. I for one have realized this for some years and have taken part in some of the medical missions to countries abroad which have sometimes pioneered in establishing good international relations. Our function was not simply that of medical teaching and cooperation. We bear this in mind and I shall try to stimulate further interest in this relationship among the Public Health Institutes and I think this message of ours from the National Heart group can be considered as representative of the rest of the groups through the country at large.

Despite this recognition of the future needs of large sums allocated for social and economic advances we do not think that there should be any subtraction for such purposes from the rather small sums allocated now for medical research. Both should go hand in hand.

6. *Frequent contacts as needed.*—Finally, all of us concerned in this great problem, and I in particular shall be anxious to provide information about the work we are doing and planning in the future. If you would like a specific and somewhat detailed report of medical advances in the field of heart disease that have resulted from research during the past decade or two I shall be glad to send you such a detailed statement. It may suffice for the moment to state

that there has been much more advance in our knowledge, prevention, and treatment in the past two decades than in all the centuries that have preceded. The advance has been truly amazing. One may cite simply a few examples of this:

A. Subacute bacterial endocarditis, sometimes called malignant endocarditis, which used to kill 99 percent of those afflicted in a slow and grueling way in the course of 3 to 6 months has become, beginning with the year 1944, curable in 80 percent of the cases and will have an even better rating than that before long.

B. Cardiovascular syphilis, which used to produce aneurysms and death in middle age in many thousands of people, is now rare in certain parts of the country and growing rarer.

C. Congenital heart disease, with defects such as patency of the ductus arteriosus and the tetralogy of Fallot, about which we could do nothing before 1936, is now in many instances curable or at least greatly helped by the magnificent advances in cardiovascular surgery through research.

D. Rheumatic heart disease, which used to comprise 40 percent of the heard cases in New England 25 years ago, is now on the decline, due to preventive, and in some instances apparently curative, measures so that now less than a quarter of the heart cases in New England are of that type.

E. Pulmonary embolism, which used to kill thousands of people every year as a postoperative complication or as a medical emergency in heart patients, is now being greatly reduced as the result of much pioneering.

Almost all of this has come through research, and a good deal of this advance has been supported by our public funds.

In conclusion, I would like to refer to the 1953 citizens' budget proposal for the National Heart Institute. Despite the fact that what we ask for in the amount of $23,318,000 total obligational cash and $14,000,000 contract authority for construction of research facilities, considerably exceeds what has been allocated in 1952 and the Budget Bureau estimate for 1953, we are sure that this increase actually spells economy in the long run. Each one of the items has been considered with extreme care. This included an increase for the research projects, for the research fellowships, for the construction of research facilities, for the expansion of teaching, for training stipends, and for grants to the States. We are sure that this does not mean extravagance or waste but just the reverse.

I hope that what I have presented above may be helpful. I shall be very glad to continue to correspond actively with yourself and the others interested.

Mr. FOGARTY. Dr. Jones, are you going to start this morning?

Dr. JONES. Yes, sir.

Mr. FOGARTY. Will you give, for the benefit of the record, your background as you have in other hearings?

Dr. JONES. I am Dr. T. Duckett Jones, of New York City. Presently I am vice president and medical director of the Helen Hay Whitney Foundation; vice president of the American Heart Association, and a member of the National Advisory Heart Council of the National Heart Institute, United States Public Health Service. However, I come to speak to you as an individual interested in medical research, and especially in basic and applied research with reference to cardiovascular diseases. With your permission, sir, I would like to submit a written statement with appendices.

Mr. FOGARTY. All right.

Dr. JONES. And speak extemporaneously for a few minutes.

Mr. FOGARTY. Very well.

STATEMENT OF DR. T. DUCKETT JONES,

(The prepared statement submitted by Dr. Jones is as follows:)

Mr. Chairman. I am Dr. T. Duckett Jones of New York City. Presently I am vice president and medical director of the Helen Hay Whitney Foundation; vice president of the American Heart Association, and a member of the National Advisory Heart Council of the National Heart Institute, United States Public Health Service. However, I come to speak to you as a private citizen interested in medical research, and especially in basic and applied research with reference to the cardiovascular diseases.

It is indeed a short span of years since the programs of the National Institutes of Health were authorized by congressional action to develop extramural research programs, based on research grants-in-aid. It was only in 1948 that the National Heart Institute was established by legislative action, and the first funds of any magnitude for extramural research were available for the fiscal year 1950. Testimony presented at previous hearings of your committee will record how the appropriations have been allocated and expended each year in accordance with the action of the Congress toward accomplishing the multiple purposes of the National Heart Act. It has been no easy task to initiate and develop a program capable of progressing, as rapidly as possible, to accomplish the worthy purposes of this congressional action in the interests of the improved health of the Nation. As an individual who has been privileged to participate in an advisory capacity, it is a pleasure to record that the steady progress and accomplishments have come about through the cooperative effort of an able and tireless group of workers in the National Institutes of Health (both scientists and administrative staff), the priceless advisory and consultative services of several hundred scientists from all areas of the United States, the excellent cooperation of our medical schools and research institutions throughout the country, and finally the tireless energies and able work of hundreds of scientists, upon whom we are dependent to extend the frontiers of knowledge. There can be no doubt that we are presently and currently utilizing the abilities of extremely able scientists and research institutions throughout the country. Accomplishments have been many. Even greater accomplishments may be anticipated should the Congress see fit to make available sufficient funds to meet carefully estimated needs commensurate with the importance of the problems involved in improving the Nation's health in this area. I speak here of improving health through the acquisition of new knowledge—a vital force and means of untold benefit to our own peoples, and those of other countries.

There seems little need to present data to you, gentlemen, concerning the magnitude of the cardiovascular diseases. However, I would request your permission to include for the record material listed under my statement as appendix A. The data clearly indicate that we are dealing with problems of great magnitude—probably the greatest health problems facing our country today.

You may well ask how the monies allocated to the National Heart Institute have been expended and what have been the accomplishments to date. It is a pleasure to comply with such a request. Recently, one of the professional members of the National Advisory Heart Council spent a good deal of time drawing up a statement of research accomplishments in heart disease in the past five years. The National Heart Institute played a leading role, perhaps the leading role in making this accomplishment possible. Seven important heart disease problems are reviewed (as well as a section on instruments and research tools or methods). In addition, an extensive section on further needs is included. It is the hope of those of us interested in progress in heart diseases that you, gentlemen, may find the time and interest to study this document (appendix B) as it will furnish you with abundant evidence of accomplishment and a basis for justifiable pride in yourselves playing a significant part in advancing the health of human beings.

Other colleagues will present to you evidence of accomplishment in the relation to arteriosclerosis and cardiovascular surgery. With your permission, I should like to briefly refer to several accomplishments of considerable magnitude:

1. Nearly 2 years ago, the Public Health Service was given some responsibility in the study of blood elements and derivatives, as a part of the national blood program. This program was and is of importance alike to the military, potential civilian emergencies, and the needs of human beings in peacetime. Funds of large magnitude were considered necessary, and it was thought would be available for this purpose through funds voted by the Congress to the civil defense program. During the first year $600,000 was expended on this program, an equal allocation of $200,000 being made available from each of three institutes, and administered by the National Heart Institute (at the direction of the Surgeon General). For the second (and present) year of the program some $800,000 has been available, $400,000 of this from the research grants funds of the National Heart Institute. Greater funds are urgently needed for this program for promising work now under way, and unless such funds are forthcoming, other important research of the Heart Institute must be seriously curtailed. These funds (and smaller funds from other sources available to individual investigators) have resulted in great advances.

(*a*) New knowledge concerning proteins (of the blood and tissues alike) and related to methods of their separation utilizing the differential affinity between various metals and proteins bids fair to revolutionize our ability to study proteins and their usages.

(*b*) The use of gamma globulins of the blood in the prevention or amelioration of important infectious diseases has been significantly increased in scope and importance.

(*c*) A small, portable machine has been developed which allows the separation (in a closed system) of individual (or pooled) blood donations into component blood elements and constituents. This will allow studies on the utilization of platelets, red blood cells, white blood cells, and even proteins, lipoproteins and steroids of the blood in an undenatured state never before possible. This opens opportunities for studies and measures for the health of individuals impossible before.

(*d*) Recently, methods of blood platelet enumeration, separation from the blood, and utilization in disease states (Thrombocytopenic purpura, radiation injury, etc.) offer new hope in important disease problems.

(*e*) Studies on the function of white blood cells have progressed considerably.

(*f*) A young scientist has demonstrated that the blood of individuals suffering from thrombocytopenic purpura (a reasonable common and often fatal bleeding disease) contains an unknown substance which destroys blood platelets. This offers new avenues of approach.

(*g*) Recent studies give fresh hope to the probability that frozen red blood cells and even whole blood may be stored indefinitely.

The new methods and tools offer fresh study opportunity which bids fair to revolutionize our knowledge of blood and the uses of its constituents.

2. Progress, though less dramatic than in the human blood area, is significant concerning hypertension. New substances have been isolated from human beings and are currently being tested, which give hope as possible blood pressure regulatory influences in the body. Progress is being made indicating complicated inter-organ relationships in regulating blood pressure.

3. Much attention has been paid to the new steroid hormones of the adrenal cortex (or pituitary hormones which influence the adrenal cortex to increased secretory activity). Many studies are gradually but surely indicating how these hormones affect body equilibrium in health and disease. Practical measures are already being used other than in the initial reports on arthritis, rheumatic fever and a few other conditions. For instance, there is a disease known as Cushing's Disease in which the adrenal cortex is known to be overactive. Though uncommon, it was previously a fatal disease. It is a vitally important disease whereby we may learn of the influence of the adrenal cortex on body function and equilibrium. Presently a few such individuals have been returned to apparent good health by the daily artificial administration of adrenal cortical substances after the surgical removal of both adrenal glands. A few years ago, this would have been considered a miracle, as the adrenal gland (or substitute substances) is essential to the continuity of life.

These examples are brief expositions of accomplishment. True, they are outstanding, but progress is consistent all along the line, and a tour of the institutions of this country gives one great pride in the interesting and productive research in progress, and the manner in which scientists and both public and private institutions are working closely together with Government to reach a common goal. Further, the atmosphere of mutual respect is likewise heartening.

The National Heart Institute is expending its funds in categories as indicated in appendix C. The very essence of a successful research program lies in our ability to keep able research personnel working, and in the advantage of continuity and stability. It is necessary to give moral commitments to carefully screened and selected projects and programs for longer periods than 1 year. This is a difficult problem in a program dependent upon annual appropriations. Further successful projects open new vistas and opportunities. Such opportunities presently exist as a result of some of the blood program successes. Currently activated and operating research work will require all but some $600,000 of the tentative 1953 budget allowance for research grants. This sum will be further reduced if the Heart Institute has to meet the cost of important blood program research from its 1953 funds. In fact, without additional research grant funds new and promising work must be curtailed. The blood program research is vitally necessary for many reasons. However, the presently allowed and uncommitted research funds for fiscal 1953 will be small indeed for new and promising research projects and opportunities. This will slow progress and prevent new

developments and the pursuit of new ideas, unless greater funds for research be made available for 1953. Such funds will be minutially examined and their allocation made with infinite care. From them we may expect and even predict great returns in human health. As indicated in appendix C, we need $8,500,000 for such research grants.

It would be easy to justify the request for funds in all categories indicated in appendix C, totaling $23,318,000 in obligational cash and an additional $14,000,000 in contract authority for the construction of research facilities. The Congress has seen fit to include construction funds in only one appropriation to the National Heart Institute. Your committee has been appraised of the usages of these funds. In many areas new laboratories are in use and giving a good account of the expenditure. It is a happy experience to visit these laboratories, but distressing to visit those places where able men work against almost unbelievable handicaps, and with little hope of betterment save through further construction grant funds. This presently unpopular budget item is a vital need to progress. This and other needs have been expressed in appendix B.

The need for increased research fellowship funds has been indicated before, and needs reemphasis and reiteration. Without a steady flow of new, young and well-trained scientists our research program will wither and die. The only other way to keep the program alive is to resort to using mediocre personnel. There is no indication that this latter would be acceptable to either the Staff or the Council. I personally believe they would prefer to curtail the program. However, able research applicants abound, and we need to seek among them the ablest future scientists possible. The committee may be interested in the two charts (appendix D) which indicate where the fellowship awards are presently working.

It is hoped that you, gentlemen, will accept the advisability of increasing funds for the Heart Institute, and for the other health institutes. One realizes the need for economy, and one often hears that the Congress this year will be economy-minded as never before. The continued necessarily high military appropriations, the great cost of Government operation, the threat of uncontrollable inflation, and other economy features are evident, dangerous and produce anxiety among all our people. Your present task as protectors of this country is a difficult one. One merely asks if in your hearts you do not believe it to be a false economy to fail to provide abundantly for a program which utilizes the best scientific minds of the day to meet the pressing needs of acquiring and applying new knowledge. With increased knowledge we shall have healthier men and women to face the serious tasks of the days, and to further enjoy the benefits of our great democracy.

Dr. JONES. It has been a very short period since the National Heart Act, which is the first time Congress saw fit to give the Public Health Service authority to make extra-mural grants, and actually our first funds of any magnitude were allocated in fiscal year 1950, so we really are only in about the third year of an appreciable program, which is a short period of time in relation to research accomplishment.

Actually the individual allocations in the various items for meeting the purposes of the National Heart Act are well known and a matter of committee record for the past several years. It has not been an easy thing to develop a broad national program in heart diseases, but through five groups this has now become an actuality.

First, an exceedingly able staff of the National Institute of Health, both at the administrative level and the scientific level are men of extremely high order.

Second, a screening method of research applications which involves several hundred scientists from all over the United States, probably is the largest single method of getting scientific evaluation that has ever been put into operation in the United States. Of course this goes across the board for all the institutes of health, and these 250 to 300 men screen everything that comes in of a scientific nature.

Next is the fact that the medical schools and research institutes of the country have cooperated in an unbelievable way and apparently

are very happy in the general way in which the programs are developing and the aids to the acquisition of new knowledge are developing.

Next, the research scientists of the country themselves on whom we are dependent for the acquisition of new knowledge, have shown themselves willing to cooperate, and on the whole are very happy about the development of the program.

Finally, the voluntary agency and agencies, particularly the national agency, the American Heart Association, is cooperating extremely well.

I do not want to take up your time to cover the question of the magnitude of the problem. I think that has been reviewed each year. We know that the many types of heart disease are causing a terrific toll, and I would ask your permission to submit a statement as appendix A which gives some data on heart disease, life expectancy, and so forth.

(The document above referred to begins on p. 287.)

I am sure that what primarily interests you is how our money has been spent and what we have accomplished up to the present time and why we need increased funds for the future, and I would like to high light several features. I would like to introduce as appendix B a statement which I believe you have already introduced, which was written by Dr. White, an evaluation of accomplishments in the last 5 years, and I hope that members of the committee will have a chance to study that because it includes a broad number of heart diseases and their present status.

Dr. Katz and Dr. Blades, who will follow me, will talk on questions of their particular interest, arteriosclerosis and advancement in the heart surgery, and so I will limit my remarks to two or three areas. First, rheumatic fever and heart disease, which is decreasing, and which in the last few years, particularly in the last 5 or 6, a great knowledge has developed.

Actually the use of sulfa drugs and daily oral penicillin are curtailing considerably the number of individuals who develop repetitive rheumatic fever, which is so disastrous and which in the past has been responsible for a death rate of 30 percent within the first 20 years after the onset of rheumatic fever.

Mr. FOGARTY. You pioneered in this field in Massachusetts, did you not?

Dr. JONES. Well, I worked in it for many years at the House of the Good Samaritan where I have worked, which has added, I believe, some very solid contributions along the way. There are many others throughout the country, and currently there are a number of projects going on supported by the Heart Institute which are adding knowledge in this field.

Then I am sure, as you know, a year or two ago cortisone and ACTH, the newest hormones, came into being and there were very favorable reports concerning treatment of acute early rheumatic fever with these substances.

Presently the Heart Institute through the cooperation of the American Heart Association and the British Medical Research Council is conducting an international multi-institutional study evaluating the influence of these new hormones in the treatment of rheumatic fever.

There are five or six institutes in the United States and five or six in England, and the cooperative effort which is developing as a result

of that, is a very striking example of what you can do if funds are available and organization structures accept responsibility.

Actually the funds are supplied by both the Public Health Service and the British research support agencies of the Medical Research Council, but are being done by private individuals in private institutions mostly.

Surgery of the mitral valve is doing a great deal for the rheumatic, but actually of more importance I think than our advances today is the fact that we can now expect a very different pattern from a few years ago; is the fact that there are chemical studies and immunological studies in process which give process of explaining the basic nature of rheumatic fever, which we have not known before.

And I believe that in another few years we may have approaches to the problem which will probably remove the necessity for the daily administration, for instance, of antibiotics, which though probably a lifesaving measure, does not tell us the fundamental way in which the disease comes.

There are 8 or 10 places in the country, practically all of them helping on this, and private agencies also that are working on the problem and adding great knowledge in this field. There is a hopeful outlook for the next few years.

Then I would like to mention the national blood program. About 2 years ago the Public Health Service was asked to assume responsibility for various research and studies related to blood elements and derivatives as a part of the blood program. Initially it was thought that a very large sum of money would be necessary for these studies, due to the importance to the military potential, civilian emergencies and to human beings in the civilian population. This is perfectly obvious.

The large majority, I believe, of the research funds which were coming from other governmental agencies were being used in the study of the so-called substitutes or extenders which are artificial substances which could be stockpiled for emergency need, and hence this program became a very vital and important part of our emergency situation or our continued emergency situation.

Initially it was thought that $2,000,000 the first year would be forthcoming and probably would be voted by the Congress through the civil-defense program and be allocated to the Public Health Service for the blood part of the program.

That never came about, and the way in which the work was financed during that first year was that the Heart Institute, the Cancer Institute, and the National Advisory Health Council allocated from their regular research budgets the sum of $200,000 each, making total budgetary picture of $600,000.

In the second year, which was last year's budget, a sum of $800,000 was allocated for this type of work, of which $400,000 was in the budget of the National Heart Institute, $200,000 from Cancer, and $200,000 from the Health Council itself. And so we have had in these 2 years a total of $1,400,000.

The National Heart Institute was asked by the Surgeon General to administer this program, and it has been a very exciting venture. A large number of scientists have met at fairly frequent intervals to discuss the acquisition of knowledge both in the basic and applied fields, and I would like to tell you a little about what has happened.

First, supported by these funds, the knowledge concerning proteins of blood and human tissues has received probably the greatest impetus of new knowledge that has come so far in this century.

It has been found by a group of distinguished investigators working at the Harvard Medical School that the affinity of various metals for proteins is a means whereby proteins of the blood, which are very important, can be separated. It is unquestionably true that we may expect to use these new methods in learning something about one of the most abyssmal areas in our whole field of chemistry. That also goes to the question of enzyme chemistry, and it is very likely that these advances are going to be usable in industry. Certainly it opens totally new fields of investigation.

Then this group has also developed so-called ion exchange resins which do a great deal toward removing various substances from blood. In addition to that, it has been known for a long time that Gamma globulins can be used to protect people from certain infectious diseases, and now the possibilities of protection or amelioration of disease are open wide with the new methods and with the methods of concentration of antibodies, and it looks very much as though very much higher concentration of these immune bodies may be obtained and used in broad ways for preventing some of our most destructive diseases.

It is even thought that in time it may be possibly a preventive measure in developing paralytic infantile paralysis, but that is for the future to determine. Certainly the way is open for great new advances.

Then there has been developed a new machine whereby a single donation of blood or pooled donations, if desired, can be separated in a closed system by differential centrifugation into the elements of blood and the fluid components.

In other words, you now can get the blood platelets, the blood vessels, the blood white cells, and all of the component materials of fluid blood in a chemical state which is processed as the blood comes from the donor and under sterile conditions. I would believe that the utilization of this machine in both medicine and industry will probably offer methods for study of utilization of various constituents of such highly complex substances as blood, such as have never been dreamed of before.

I would be surprised if it is not going to result in completely revolutionary handling of many of the present chemical methods of utilizing blood components. At that time the blood platelets will have been very much more clearly enumerated. We now separate them and are beginning to use them. For instance, it has long been known that in radiation injury and in thrombocytopic purpuva, the platelets disappear and it is now possible to substitute platelets, and apparently several individuals at the study level are being kept alive now by administering blood platelets which opens a brand-new area. But we have known very little about blood platelets in the past.

Then the white blood cell has long been the object of tremendous study by scientists. It is supposed to be the type of cell which aids the body in fighting infection. Actually in whole blood they begin to degenerate almost at once, and one of the great difficulties with blood is that with the processes which are inherent in blood, that you cannot keep it for longer than 3 weeks. By the third day the white blood

cells disappear from whole blood in our blood banks. Now we can get the white blood cells out, and already some very interesting data have come forth concerning the content, chemical content, of the white blood cells.

For instance, particularly in relation to an enzyme called lysin, which we have not know about before. I mean its place in the body has been very much a mystery; it offers new opportunity to study cell growth and fatal diseases such as leukemia. I think that is a very important part.

A young scientist in St. Louis has recently demonstrated that the blood of people with this thrombocytopic purpuva, bleeding disease, which is a frequently fatal and a fairly common disease, contains a substance which destroys platelets. Now people working in this field have a new lead, and they are working to find a substance in human blood which is capable of destroying platelets and which causes this fairly common scourge.

In addition, a young scientist, supported by a Public Health Service program, working initially in England and now back in this country, and a scientist at Duke University working in the same area, seem to have developed methods of freezing red blood cells which may result in keeping red blood for indefinite periods in a frozen state and having them capable of being utilized for indefinite periods. Previously, you had to alter the red blood cell completely or else it was no good after 3 weeks.

It has been one of the very difficult problems in our whole-blood program, and I am sure you are aware of the fact that we are now flying blood across the Pacific because of the inadequacy of methods of keeping it for long periods of time.

Apparently that goes for whole blood also, and the methods now being developed may completely in time change our whole utilization of blood and its constituents in health, disease, and in surgery, and may change the whole-blood bank picture of the country.

The primarily important step is that basic chemical knowledge has come from this program that is inciting a very important feature in improvement in health. I think it has exceeded all of the expectations of those who have sat in on many of the committee meetings of the blood group in the country.

This, however, has produced a very serious matter in the Heart Institute itself because some of our funds have gone into this, funds that were used for research programs more directly related to the problems of heart diseases, and I will mention them in a few moments.

Just a few words about hypertension. Of course, this has not been licked. There have been, however, contributions in the last 2 or 3 years that give promise of knowledge which in time may help in solving the problem. There are several substances which have been isolated which are being studied very extensively by several groups of individuals and may play a very important role in regulating human blood pressure.

In addition the role of the adrenal cortex is being very carefully studied concerning its possible role. As you know, for the past few years several dietary patterns have been developed, low salt, low protein, low animal fat, rice diet, and they are used effectively in some patients with hypertension.

I would say that this has also opened a field of basic research which is going on very actively throughout the United States at present concerning the role of various nutritional substances in regulating not only blood pressure but other body functions. Those data are coming in at a very fast clip.

Finally, about the steroid hormones for the study of which you may remember the Congress was good enough to make a $3,000,000 over-all grant 2 years ago. There are many studies concerning the role of the adrenal cortex and its substances in body equilibrium and health and disease, the mechanism of the action of the adrenal and its control is continuing to be a very exciting chapter in medicine today.

One thing I think has developed which might be of some interest to you. There is a syndrome called Cushings disease, described by Dr. Harvey Cushings, a very great brain surgeon. As a result of pituitary disease, individuals have developed a certain syndrome of the characteristic symptoms which has been fatal. That syndrome was brought about by the interreaction between the pituitary hormones and the adrenal hormones just as ACTH, adreno corticotropic hormone from the pituitary causes the adrenal to put out its hormone, so this naturally causes an excess of adrenal function.

These people formerly died, but may now have their adrenals removed. Removing both adrenals, up to a very few years ago, had always been fatal. The adrenals are essential to the continuity to life, but now you can bilaterally adrenalectomize them and supply a proper balance substitute hormone therapy daily, and these people live.

I talked to one the other day who for the past several months has been without adrenals, who was in a rapidly approaching fatal state. The woman has now been able to return to her family and do her housework and take care of four children. The balance of the body in relation to its chemical equilibrium and hormones is continually advancing and is unquestionably one of the great and exciting patterns of the day.

Mr. FOGARTY. One substitute is in the form of cortisone?

Dr. JONES. Cortisone is one, and they also have to have the so-called doca which is one of the other hormones from the adrenal glands.

Mr. FOGARTY. Do they have to take them daily?

Dr. JONES. They have to take them daily.

Mr. FOGARTY. Suppose they lose them?

Dr. JONES. They die. Isn't that true, Dr. Katz?

Dr. KATZ. Yes.

Dr. JONES. But this is a very exciting venture to see people who previously used to die, now with penicillin 80 to 90 percent of them are cured.

Mr. FOGARTY. What disease is that?

Dr. JONES. It is a bacterial infection of the heart valve which is found commonly on the basis of an old rheumatic heart or congenital heart disease. That has happened in the late years, of course, but it has been previously mentioned in other hearings.

In closing I would like to say something about the needs. In appendix C which I have submitted, there is a budget. That has also been justified, I think, by the statement of Dr. White, but in developing this program it has been essential to give multiple-year commitments, because continuity and stability is one of the most important features in advance and research.

And so we have with carefully screened projects made multiple-year moral commitments, and with the use of funds for the blood program we in the Heart Institute are presently in a very great dilemma concerning funds for new and promising research.

If we have to spend funds in this area for the blood program next year—and I am quite certain the Heart Council would feel that it is vitally essential to progress of the country—we are going to be forced in June to turn away endless new and exciting and promising projects. We are very hopeful that you will recognize that it is vitally important not to keep these funds at the present level, but to give us increased funds. Accomplishment is happening constantly, and we believe it vital to not only this program, but to the health of the country. This must be done across the board for all other features.

We desperately need fellowship funds. If we don't get increased fellowship funds, we are going to be forced in time to curtail our program, because it is only through such funds that we can seek out the very best brains that are available in the country. I am sure that we would not like to use mediocre brains in this program, and so we need funds. There are endless able men applying, and the fellowship program is exceedingly small.

Similarly it is a great joy to go through the country and see the laboratories now at work which resulted from the single construction grant which was allowed by the Congress. But it is also distressing to go to many other institutions throughout the United States and find that people are working against almost unbelievable hardships and handicaps trying to do their work with inadequate laboratory space and equipment, and so this very unpopular item, presently unpopular item, is a great need of the country if we are going to do anything like fill the bill as far as the magnitude of the problem is concerned.

Mr. FOGARTY. Why do you call it an unpopular item?

Dr. JONES. Because we haven't gotten any funds for it for such a long time. We just had them once, and there haven't been any construction funds for laboratories in this program except one time, and we have tried to justify their expenditure each year, but they have not been allowed.

Mr. FOGARTY. The Bureau of the Budget has not allowed it in the last 2 years.

Dr. JONES. That is true. There is a terrific need throughout the country, terrific.

Just one final word—I am quite certain that you gentlemen are going to be economy minded. I am sure the country would like to be economy minded, and we are in a pattern of continued emergent situations in which tremendous costs are the order of the day.

I would just like to point out that according to my way of thinking, it is rather false economy not to allow a program that so unequivocally has the utilization of the best brains in the country working toward an end that people may be healthier, healthier for participation in the serious tasks that this country has ahead of it, the increased production that is needed and, we hope, enjoying the benefits of our democracy.

I would certainly feel that if we do not have some increased funds at the present time, that we are going to have to strictly cut back a

program in which accomplishment is pretty obvious to most of the scientists of the country and certainly is most important to the health of the country.

Mr. FOGARTY. How much did the American Heart Association raise last year?

Dr. KATZ. $5,500,000.

Mr. FOGARTY. How long has that drive been in effect?

Dr. JONES. You mean this year?

Mr. FOGARTY. No, for the American Heart Association.

Dr. KATZ. Three years.

Mr. FOGARTY. So it is a relatively new program and has been in effect since the passage of the National Heart Act by Congress?

Dr. JONES. I am sure that they——

Mr. FOGARTY. What did they raise the first year, do you know?

Dr. KATZ. $1,600,000.

Mr. FOGARTY. And what did they raise the second year?

Dr. KATZ. My recollection is $3,800,000.

Mr. FOGARTY. And last year $5,500,000?

Dr. KATZ. $5,800,000 this year.

Mr. FOGARTY. I remember when Federal funds for this grant-in-aid program were put in by this committee after the enactment by Congress of the National Heart Act, there was some concern expressed by some members of the committee that it might tend to diminish the interest of the public, but I know that in cancer and in mental health it has resulted in increased private funds.

Dr. JONES. Yes.

Mr. FOGARTY. And that is true in the Heart Association also?

Dr. JONES. Yes.

Mr. FOGARTY. And definite headway has been made because of research in the last 3 or 4 years?

Dr. JONES. I think that that would not only be the opinion of the three of us and Dr. White who has given a statement, but would be the unequivocal opinion of scientists throughout the country without exception.

Mr. FOGARTY. And definite headway has been made in rheumatic fever, especially in children, which is almost controllable today?

Dr. JONES. Well, certainly I don't know that we have the means of applying our present knowledge to prevent all of it developing, but a person once developing it today certainly ought to look forward to a very different pattern from what he did 10 years ago, very different. But further than that, I think that the basic knowledge of the fundamental mechanisms of the disease are beginning to unwind, so that we may really hope to know much more about it than we do now.

Mr. FOGARTY. And with the completion and the staffing of the new clinical building at Bethesda, it will be another step in that direction, will it not?

Dr. JONES. I think it will be a very important step, sir.

Mr. FOGARTY. Any questions?

Mr. DENTON. Has anything been done about hardening of the arteries?

Dr. JONES. Dr. Katz is going to talk about that, sir.

Mr. FOGARTY. Mr. Busbey.

Mr. BUSBEY. I don't know who should answer this question, but as a layman who knows nothing about medicine, I was interested in what has been explored in the field of heart to do something to advise people what precautions they should take to prevent a heart condition.

It seems to me that when the doctor gets the patient, the damage has been done, and maybe a great deal has been done to educate him as to what means and methods might be used to try and cut down the number of heart patients, but I am not familiar with them.

Dr. JONES. I think there are two moves that are very active at the present time. One is through the controlled grants to States. The Public Health Department in practically every State in the Union is seeking a means and exploring how they may in working with local groups, both heart associations and medical associations, apply present knowledge and bring it to the benefit of the public. There are tremendous educational programs now in operation.

The American Heart Association is doing an educational program for both physicians and the public. All of them are slanted at prevention very heavily.

Mr. BUSBEY. For instance, what would be some of the symptoms that an individual might have that would give the warning to him that he ought to slow down or be careful?

Dr. JONES. Dr. Katz can perhaps answer that.

Dr. KATZ. Well, first of all, if I may take up a general statement, there is a major idea that education of what we know is something that should be disseminated throughout the country. This being done by the National Heart Institute and by the American Heart Association.

We like to see that every general practitioner throughout the country in every hamlet and village knows what there is known about heart disease. We like to have the people know about it.

I would suggest, Mr. Busbey, that you might be willing to suggest that a panel be held of doctors in this field at which Congressmen and Senators could attend. We call that a "layman meets the doctor," and these questions could be openly discussed, not as testimony for funds but simply to tell exactly what we do know.

Now specifically one of the things we do suggest is that every patient tell his doctor everything that is wrong with him. As I travel around the country I found that many patients want their doctor to pat them on the back and say, "You're all right, Joe, there is nothing wrong with you." Then if the next day or two something happens to him and he pops over with a heart attack, why they say the doctor didn't know about it.

You may know in Chicago what happened to Mayor Kelly, the same sort of thing. The first thing that I would say the patient need to do to doctors—and I am not in practice—is to tell him, take him into their confidence. As a matter of fact, I would say that whenever anyone suddenly goes to a doctor there must be some excuse for it, some reason for it.

In other words, when you have something wrong with your car and the engine misses, the first thing you do is get a good mechanic to see what is wrong.

Now the second thing is that doctors are being trained to be what I call counselors of living where they spend more time in talking to

people about their affairs and less in what I call peddling pills. In other words, many people have lots of troubles and all of these impact on the heart.

Then there are specific advices about how to live well. In other words, to cut out this massive competitive scheme of our western civilization, to have more fun in life, not try to go up too fast in the world. Go up slowly, not to let the job run one but to run the job.

In other words, we say, be your age. Don't be an athlete. Don't try to shovel the snow off the sidewalk when you don't do it the rest of the time. Don't run up stairs—walk.

Those things are very simple advices and if more people would do it then a lot of this thing we are talking about would be gone.

As to diet, I think everybody should keep his graceful 21-year-old figure. Insurance statistics show that obesity tends to be one of the most important causes for cardiac disabilities, and those are the general advices.

I don't know whether that answers your question, but whenever a person is troubled with anything at all about his heart, he should go to his family counsellor. Secondly, he should live right. Thirdly, he should eat right. I think that is all there is to it.

Mr. BUSBEY. Are there some general symptoms that give you a warning in some cases?

Dr. KATZ. Yes; I would say that if a man is suddenly tired, if a man suddenly gets funny feelings in the chest, if a man suddenly gets short of breath and can't do the things he did before, that is a sign perhaps his heart is not up to par and he should go and see somebody and have a thorough examination.

As a matter of fact, in my hospital, every doctor over 40 has at least a yearly examination. It is good insurance.

I don't know whether that answers what you had in mind. I know I am evasive, but I think in a legal case if you ask a generality you have to deal in general terms. If you spell out a specific case the doctor can discuss it specifically.

Dr. JONES. Actually I think Dr. Katz' testimony about arteriosclerosis will bring out many of the points concerning the direction in which we are going in solving that problem.

Mr. BUSBEY. I will defer any other questions, then.

APPENDIX A

WHAT ARE WE DOING ABOUT DISEASES OF THE HEART AND THE CARDIOVASCULAR-RENAL SYSTEM AND WHY SHOULD RESEARCH FUNDS IN THIS FIELD BE INCREASED AS A PART OF OUR NATIONAL DEFENSE PROGRAM?

I. How many people die of heart diseases (including cardiovascular-renal diseases[1] every year in the United States?

1. The number one killer of our people is heart disease, including diseases of the cardiovascular-renal system (1).

2. More than one in every two deaths is due to a cardiovascular-renal disease (2).

3. It is estimated that 770,699 Americans died of cardiovascular-renal diseases in 1950, out of a total of 1,456,000 deaths (2).

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[1] Rental diseases are diseases of the kidneys, in this instance related to cardio-vascular disorders.

(*a*) Diseases of cardiovascular system:	
1. Vascular lesions affecting central nervous system primarily cerebral thrombosis, due to arteriosclerosis, cerebral hemorrhage, cerebral embolism)	156,513
2. Rheumatic fever	2,187
3. Diseases of heart (mostly due to arteriosclerosis)	535,920
4. Hypertension (without mention of heart) and general arteriosclerosis	43,002
5. Other diseases of circulatory system	7,510
	745,132
(*b*) Chronic and unspecified nephritis (kidney disease) and other renal (kidney) sclerosis	25,567
	770,699

4. 82 million Americans now alive will die of cardiovascular-renal diseases unless new treatments and cures are found (3).

5. During World War II, 1,967,468 people died in the United States of diseases of heart and circulation (4). This is nearly eight times as many people as were killed in action in the Armed Forces (5).

II. What was the military manpower loss in World War II because of heart disease?

1. 317,500 men, or nearly 7 percent of 4,828,000 rejected before induction as of August 1, 1945, by the Army, were rejected because of heart disease (6).

2. 80,000 men were given disability discharges from military service or died in military service from heart disease during the war years, 1942–45 (7).

3. This manpower loss from heart disease, a total of 397,500 men, would have been sufficient to man 27 Army infantry divisions (World War II division strength, 14,477) (8).

III. How many people are suffering from diseases of the heart and circulation in the United States?

1. It is estimated that between 9,000,000 and 10,000,000 people are suffering from diseases of the heart and circulation (9). Counting varicose veins and other less serious ailments such as hemorrhoids, about 14,000,000 are afflicted (30).

2. In contrast with this, 670,302 Americans were wounded in action in World War II (10).

IV. What is the civilian economic loss from heart disease and what does it mean to wartime production?

1. At least 653,000 man-years are lost each year (12).

2. $1,974,672,000 were lost in 1950 in productivity (11) (12).

This would purchase:

26,328,960 Garand rifles at $75 each; or
10,791 pursuit planes at $183,000; or
6,582 antiaircraft guns at $300,000; or
26.5 infantry divisions' equipment at $74,300,000.

3. Compensation and pension payments to veterans in 1950 for cardiovascular disabilities was $168,250,000 (22).

V. How do deaths from cardiovascular-renal diseases compare with deaths from other diseases?

1. Fifty-three percent of all deaths are caused by cardiovascular-renal diseases (3).

2. Cardiovascular-renal diseases kill:

(*a*) Over three and one-half times as many people as cancer (13).

(*b*) Over 23 times as many people as tuberculosis (13).

(*c*) Over 2,112 people every day. Over a period of 8 days, this means 16,896 people, or more than 16,480 American dead in Korea in 17 months of war (14).

(*d*) More people died of heart diseases in 1 day (2,112 deaths) than of infantile paralysis for the whole year (1,685 deaths) (23).

VI. How many doctors specialize in diseases of the heart?

1. Only 477 physicians are certified by the American Board of Internal Medicine as specialists in the field of cardiovascular disease (15).
   (*a*) This means that there is only 1 certified physician who is a specialist in the field of cardiovascular diseases for every 1,616 people who died of cardiovascular diseases in 1950.
   (*b*) In addition, there are 6,737 qualified specialists in internal medicine, many of whom give special attention to cardiovascular diseases (15).

VII. What facilities are available for special care of people with diseases of the Heart and circulation?

1. For the minimum number of 9,000,000 people suffering from diseases of the heart and circulation, there are in the entire United States only about 726 beds in 11 institutions specifically designated for the treatment and care of cardiac patients, mostly children with rheumatic fever (appendix I).

VIII. How much money is available for research in this field annually?

1. About $8,639,321 divided as follows (appendix II):
   (*a*) Public funds: The National Heart Institute, United States Public Health Service, has appropriations for research for the fiscal year beginning July 1, 1951, of about $6,938,000.
   (*b*) Private funds: Leading voluntary agencies interested in cardiovascular diseases allocated for 1951 approximately $1,701,321.
2. In other words, we are spending only about $11.21 per death annually for research to find the causes and cures of the greatest killer of our people.

IX. How does this compare with what we spend on other research?

1. In contrast with the total of about $8,639,321 being spent for research in diseases of the heart and circulation:
   (*a*) Congress appropriated a total of $74,218,974 for the Research Administration of the Department of Agriculture for 1951 (16).
   (*b*) The Department of Agriculture actually spent $40,566,197 in 1950 for the program of control and eradication of foot-and-mouth disease (17).
2. We live in an economy where, in 1950, the following was spent for industrial research: The Standard Oil Co. (N. J.) intelligently spent for scientific research and development projects, $20,100,000 (18).
3. About $14,974,982 is being spent in the field of cancer research, the second cause of death in the United States (19). This contrasts with only about $8,639,321 for diseases of the heart and circulation, the first cause of death.
4. The total amount available from all sources for research in diseases of the heart and circulation is less than half of the $18,380,000 voted by Congress for the Department of Agriculture's marketing-research program in 1950 (20).
5. $34,260,000 is spent annually for stomach sweeteners (21), in contrast with about $8,639,321 spent for research in diseases of the heart and circulation.

X. Is heart disease primarily a disease of old age?

1. No. Of the 745,132 people who died from diseases of the heart and circulation in 1950, 241,258 or one-third, were under 65 years of age (23).
2. In 1950, more children died of diseases of the cardiovascular system than the total number of deaths of people of all ages from infantile paralysis (23).
   (*a*) Among children under 15, more than twice as many died of diseases of the heart in 1950 as died of infantile paralysis (23).

XI. Do people of the United States think more research in this field is necessary?

1. Seventy-nine percent of the people questioned in a recent poll were in favor of the Government's spending $200,000,000 for research to find the causes and cure of diseases of the heart; and 80 percent were willing to pay more taxes to provide the money (24).

REFERENCE LIST

(1) National Office of Vital Statistics. (1 out of 1.93 deaths in 1949; 1 out of 1.89 deaths in 1950.)
(2) National Office of Vital Statistics: Total deaths 1950, 1,456,000; deaths from cardiovascular-renal diseases, 770,699. These are provisional figures; the final 1950 mortality data not yet available.

(3) Fifty-three percent of the total deaths in 1950 were caused by cardiovascular-renal diseases; 53 percent of 154,000,000 (estimated 1951 United States population) is 81,620,000.
(4) National Office of Vital Statistics.
(5) Killed in action in World War II, Army, 176, 432; Navy (died overseas) 72,269; total, 249,701 (World Almanac 1948, p. 551).
(6) Selective Service System, national headquarters, chart: Estimated Principal Causes for Rejection of Registrants 18–37 Years of Age in Class IV–F and Classes with "F" Designation, August 1, 1945.
(7) United States Navy: Report of the Surgeon General, 1946. Medical Statistics and Unpublished Data of the Medical Statistics Division, Surgeon General, Department of the Army.
(8) Army Statistical Review, World War II, Army Services, War Department.
(9) Dr. Rolla E. Dyer, former Director, National Institute of Health; estimate based on analysis of the health of the Nation, 1940 (memorandum dated May 28, 1947).
(10) Wounded casualties in World War II, Army, 571,822; Navy, 98,480; total, 679,302 (World Almanac 1948, p. 551).
(11) National Income Supplement, Survey of Current Business 1951, published by United States Department of Commerce; table 26. Average individual earnings, 1950; $3,024.
(12) America's Health, A report to the Nation by the National Health Assembly, p. 185. Published by Harper & Bros., New York, 1949.
(13) National Office of Vital Statistics. 1950 deaths (provisional figures): Cancer (malignant neoplasms), 211,090; tuberculosis, 33,633; typhoid fever, 90; diphtheria, 432.
(14) Time magazine, November 19, 1951, quoting Defense Department report of October 5–November 2, 1951.
(15) American Board of Internal Medicine, letter dated December 17, 1951.
(16) United States Budget, fiscal year ending June 30, 1952, p. 344.
(17) Budget of the United States, Department of Agriculture, fiscal year ending June 30, 1952.
(18) Telephone conversation December 21, 1951, with Miss M. E. Reynolds, assistant secretary, Standard Oil Co. (N. J.), 30 Rockefeller Plaza, New York 20, N. Y.
(19) Government funds for fiscal year beginning July 1, 1951: $9,432,000; voluntary agencies: Approximately $5,542,982; total $14,974,982.
(20) Letter dated September 13, 1950, from Joseph C. Wheeler, Acting Director of Finance, United States Department of Agriculture, Washington, D. C. Cost of marketing research program, $18,380,000.
(21) Drug Topics, July 30, 1951; Published by Topics Publishing Co., New York, N. Y.
(22) National Headquarters, Selective Service System, Veterans' Administration, Claims Statistics Service.
(23) National Office of Vital Statistics: Total deaths 1950, 1,456,000; death from diseases of the heart and circulation, 745,132; deaths of children under 15 from cardiovascular diseases: 1,905; from infantile paralysis, 764; total deaths from infantile paralysis: 1,685. These are provisional figures; the final 1950 mortality data not yet available.
(24) Poll conducted by American Institute of Public Opinion, Princeton, N. J., June 26, 1948.
(25) United States Public Health Service, Division of Finance:

National Heart Institute, 1952 current budget

Obligational cash:	
Intramural research	$1,829,000
Research Project (Grants-in-aid)	4,809,000
Research fellowships	300,000
Grants-in-aid to States	1,500,000
Trainees	150,000
Teaching grants	741,000
Other	671,000
Total obligational cash	10,000,000

(26) Helen Hay Whitney Foundation, estimate for fiscal year beginning January 1, 1951.

(27) New York Heart Association, fiscal year beginning October 1, 1950, per George Hingers, assistant treasurer December 7, 1951.

(28) Life Insurance Medical Research Fund, awards for calendar year 1951. News release, New York Times, February 1951, by president of the Research Fund.

(29) American Heart Association, fiscal year beginning July 1, 1950, per Mr. Chisholm.

(30) Estimate for July 1, 1949, Collins, S. D.: Statistical Studies of Heart Diseases—V, Public Health Reports, November 18, 1949. Also, figures from National Health Survey, Bulletin No. 6, United States Public Health Service 1938, adjusted to 1950 population.

APPENDIX I.—*Hospitals, sanatoriums, and related institutions registered by the American Medical Association as cardiac under "type of service"*

(JAMA Hospital Number, May 12, 1951, vol. 146, No. 2)

	Beds
Florida: National Children's Cardiac Home	62
Illinois: La Rabida Jackson Park Sanitarium	85
New Jersey: Children's Heart Unit of Victoria Foundation	24
New York: Irvington House	[1] 135
New York: St. Francis Sanatorium for Cardiac Children	[1] 200
New York: Wieting-Johnson Memorial Hospital	[1] 40
New York: Rochester Convalescent Hospital for Children	[1] 40
Pennsylvania: Children's Heart Hospital	60
Subtotal	646
RELATED INSTITUTIONS	
Illinois: Herrick House	50
Pennsylvania: Children's Heart Haven	30
New York: Chronic Disease Research Institute[2]	--
Total	726

[1] Division of Medical Services, New York State Department of Health, states these 415 beds set aside for cardiac patients where clinical research with the prevention and treatment of rheumatic fever in children is being done.

[2] 12 pediatric and 38 adult beds for research in chronic illness, only some of which are related to heart disease. (Division of Medical Service, New York State Department of Health, Dec. 14, 1951.

APPENDIX II.—*Funds available for research in diseases of the heart and circulation*

Federal funds:	
1. National Heart Institute, through U. S. Public Health Service Division of Finance, for fiscal year beginning July 1, 1951 (25)	
a. Intra-mural research	$1,829,000
b. Research projects (grants-in-aid)	4,809,000
c. Research fellowships	300,000
Total, public funds	6,938,000
Leading private funds:	
1. Helen Hay Whitney Foundation (26)	26,000
2. New York Heart Association (27) 1951	[1] 252,021
3. Life Insurance Medical Research Fund (28)	725,000
4. American Heart Association (29)	[2] 464,300
Total, private funds	1,701,321
Total, all funds (approximate)	8,639,321

[1] In addition to contribution of $67,147 to American Heart Association.

[2] Includes contribution of $67,147 from New York Heart Association.

HEART DISEASE FACT SHEET, NEW YORK STATE

I. How many people die of diseases of the heart and circulation in New York State?

1. The No. 1 killer of our people is heart disease (1).

2. One in every two deaths in New York State is attributed to diseases of the heart and circulation (1).

3. Seventy-four thousand four hundred and thirty-seven human beings died of diseases of the heart and circulation in New York State in 1949, as follows (1):

(*a*) Heart disease including acute rheumatic fever, 60,437.

(*b*) Intracranial lesions of vascular origin, 10,540.

(*c*) Other diseases of the arteries, 3,460.

4. During World War II, approximately 280,000 died in New York State of diseases of the heart and circulation (2). This is over 10 times the number of New York State residents killed in action in the Armed Forces (3).

II. How many people are suffering from diseases of the heart and circulation in New York State?

1. Approximately 1 million people are suffering from diseases of the heart and circulation (4).

2. In contrast with this, it is estimated that 70,000 New York State residents were wounded in action in World War II (5).

3. A total of at least 15,000,000 workdays a year are lost in New York State because of diseases of the heart and circulation (6).

III. How do deaths from diseases of the heart and circulation compare with deaths from other diseases?

1. Approximately 50 percent of all deaths are attributed to diseases of the heart and circulation (1).

2. Diseases of the heart and circulation kill (1)—

(*a*) Almost three times as many people as cancer.

(*b*) Sixteen times as many people as tuberculosis.

(*c*) Over 200 people every day. This is more than four times as many people as died of scarlet fever and diphtheria during the entire year of 1949 in New York State.

IV. How many doctors specialize in diseases of the heart?

1. One thousand and twenty-two physicians are certified by the American Board of Internal Medicine or listed on the roster of the New York State Department of Health as specialists in internal medicine. Only 331 are in up-State New York, of which 8 are registered as specialists in cardiology (7).

V. What facilities are available for special care of people with diseases of the heart and circulation?

1. There are in New York only 390 beds set aside for cardiac patients where clinical research in heart disease is being done; 365 of these are concerned with the prevention and treatment of rheumatic fever in children. The remaining 25 beds are for adults in the Chronic Disease Research Institute in Buffalo, opened in 1950 (8).

VI. How much money is available for research in heart disease?

(*a*) Public funds: 1. No State funds are appropriated for either research or services in heart disease, except for (*a*) reimbursement to counties for the care of children with rheumatic fever in a limited area of New York State. Approximately $50,000 was spent for this purpose in the last fiscal year (1949–50), (*b*) operation of the Chronic Disease Research Institute in Buffalo, which includes 25 beds for research in heart disease. Approximately $50,000 of the current year's allocation may be considered as an expenditure for this purpose (7).

2. No Federal funds (State grants-in-aid) are expended primarily for research in heart disease in New York State. All of the current allocation of $90,000 from the United States Public Health Service is required for clinic, diagnostic, and educational services. However, 62 direct research grants from the United States Public Health Service totaling $810,438 were made in the current year to New York State hospitals and institutions (7).

(*b*) Private funds: 1. For New York State as a whole, during 1949 approximately $367,000 of money raised by the voluntary heart associations was assigned to research in cardiovascular diseases. Of these funds $12,500 was provided by

the up-State New York affiliate chapters, most of which are just in the process of organization. This sum represents approximately one-eighth of the total funds raised. The remaining $354,500 was raised in New York City by the New York Heart Association. Most of these funds were devoted to research directly by the association, but approximately $67,500 was referred to the American Heart Association for research purposes (7).

VII. How does this compare with what we spend on other research?

1. In contrast with the total amount of $100,000 allocated to the New York State Health Department for research in diseases of the heart and circulation:

(*a*) $125,000 is currently allocated for research in cerebral palsy which affects only a small number of people (7).

(*b*) Several hundred thousand dollars is allocated for research in cancer, the second cause of death. Heart disease kills three times as many as cancer (7).

VIII. Is heart disease primarily a disease of old age?

1. Of the 76,067 people who died from diseases of the heart and circulation in 1948, 26,395, or slightly over one-third, were under 65 years of age (1949 deaths by age not available as yet) (9).

2. In 1948, more persons under 21 died of diseases of the heart than the total number of deaths of people of all ages from infantile paralysis (2).

REFERENCE LIST

(1) New York State Monthly Vital Statistics Review, supplement provisional data for 1949, March 1950, volume 30, No. 13.

10 leading causes of death, 1949

All causes	155,010
Heart disease (58, 90–95)	60,437
Diseases of the arteries	14,000
Intracranial—vascular origin (83)	(10,540)
Other (96–99)	(3,460)
Cancer (45–55)	26,203
Accidents	7,896
Nephritis	5,378
Tuberculosis	4,539
Pneumonia	4,370
Premature birth	2,976
Diseases peculiar to first year of life	1,778

(2) Annual Vital Statistics Reports, New York State Department of Health.

(3) Legislative Manual, New York State, 1950.

Army:	
Killed in action	18,076
Died of wounds	2,063
Died of injuries	97
Total	20,236
Navy, died in combat	5,220
Total	25,456

Number of deaths from heart disease, 1942–45: 286,445.

(4) Approximately 10 percent of the deaths from heart disease are in the United States. On this basis, it is estimated that 10 percent of those suffering from heart disease are in New York State.

(5) The population of New York State is approximately 10 percent of that of the United States. On this basis, it is estimated that 10 percent of the 670,302 Americans wounded in action in World War II were New York State residents.

(6) The population of New York State is approximately 10 percent of that of the United States. On this basis, it is estimated that 10 percent of the estimated 152,000,000 days lost in the entire United States due to diseases of the heart and circulation is 15,000,000 days lost in New York State.

(7) Division of Medical Services, New York State Department of Health.

(8) Journal of American Medical Association, May 6, 1950, vol. 143, No. 1; and Division of Medical Services, New York State Department of health.

	Number of beds
Hospitals:	
Weiting-Johnson, Syracuse	40
Irvington House, Irvington-on-Hudson	115
St. Francis Sanatorium for Cardiac Children, Roslyn	150
Children's Convalescent, Rochester	40
Total	345
Related institutions: Pelham House for Children, Pelham	20

(9) Office of Vital Statistics, New York State Department of Health.

Appendix B

I—Heart Research Accomplishments in the Past 5 Years

1. RHEUMATIC HEART DISEASE

Rheumatic fever and heart disease cause more deaths between the years 5 and 14 than any other disease. Every year more than 30,000 new cases develop. About 750,000 persons under 50 have damaged hearts because of this disease.

Research has shown that most cases of the rheumatic fever which causes rheumatic heart disease can be prevented by use of sulfonamides and particularly penicillin. These antibiotics can knock out the group A streptococcus infections which usually precedes an attack of rheumatic fever. The drugs are also used as a prophylactic measure to stop the return bouts of rheumatic fever to which persons who have had the disease are susceptible.

A variety of approaches to the research problems of rheumatic heart diseases are being following up through Heart Institute support. The new hormones ACTH and Cortisone apparently lessen dramatically the acute stage of rheumatic fever and through long-term studies are underway to find out how they can best be used and what their potentialities are. Other investigations are pointed at correcting heart damage caused by the disease.

One investigator has developed a new technique for the repair of mitral insufficiency, the leaky valve condition that often occurs. This surgical method, in which a piece of the sac enclosing the heart is pulled through the heart and attached so it moves loosely against the damaged valve, has been successful in a high percentage of cases treated.

Another researcher developed a preparation called streptokinase which promises to be valuable in combating infections which attack the heart valves.

Plastic heart valves have been developed which, following further refinement and testing, may be a successful means of replacing valves severely damaged in rheumatic heart disease.

2. ARTERIOSCLEROTIC HEART DISEASES

More people die from arteriosclerosis and arteriosclerotic heart disease than from any other single cause. Forty-seven and a half percent of all cardiovascular deaths (354,000 out of total 1950 estimated cardiovascular deaths, 745,000), are due to arteriosclerosis, 13 percent, or approximately 97,000 deaths, to hypertension, and an additional 20.9 percent to one of these two but not definitely classified as one or the other.

Coronary artery disease accounted for 294,000 deaths in 1949. The number of deaths and the number of persons disabled by coronary artery disease appears to be increasing.

Research has made much progress in treatment of conditions caused by hardening of the arteries. The development and use of anticoagulants, such as Dicumarol, heparin, and Tromexan, to prevent the growth and formation of blood clots, has been a significant advance in reducing deaths from coronary disease.

Evaluation of the effects of Dicumarol and improvement of techniques for its safe use were brought about by a Public Health Service supported study in a number of institutions throughout the country. These simultaneous investigations rapidly secured clinical data so that safe treatment procedures could be generally applied for the benefit of heart-disease sufferers. Heart Institute studies are directed at finding more satisfactory anticlotting agents, ones that may be more easily controlled, and requirements for the type desired have been established. Investigations made possible by institute grants are providing new knowledge of the clotting of the blood, important in heart attacks, strokes, and blood-vessel disorders in the legs.

One researcher has found two fatlike substances which cause opposite effects on clotting. One of the substances, thrombocytopen, reduces the clotting power of the blood. The other, thrombocytosin, increases it. These may lead to new methods of treating coronary thrombosis.

One of the most important discoveries of 1950 was made by a Heart Institute grantee, Dr. John Gofman. Giant cholesterol-bearing molecules, not present in normal blood, were discovered in the blood of patients with atherosclerosis—a common type of arteriosclerosis. The discovery is having far-reaching results. It not only throws light on the cause of this baffling disease, but may lead to simple tests for case-finding and preventive or curative treatment. Four investigations are now evaluating the role of these molecules.

A method to diminish and, in many cases, eliminate the crushing pain that accompanies a heart attack has been found by a National Heart Institute grantee. An ethyl chloride spray will freeze the pain centers and stop the spasms which cause contractions and impairment of the surrounding circulation.

A powerful new drug, procaine amide, was developed by Heart Institute scientists as an effective treatment for irregular heart beats or palpitations. This promises to save many lives, because it suppresses the irregular heart rhythms which often cause cases of coronary thrombosis to have a fatal outcome. It has also been found valuable in surgery during anesthesia and in all chest surgery involving the heart and surrounding tissue.

Progress is being made in alleviating the dangerous condition resulting from thrombosis where the heart tissues suffer from lack of nutrition when arteries become blocked. Physiological studies of the factors influencing the rate and development of substitute blood bypasses in the heart are determining the effects of anemia, low oxygen tension, various drugs, exercise, and rest. Clinical application of knowledge produced would lead to beneficial therapy for coronary occlusion patients. Surgical methods also show promise. By short circuiting certain arteries, the flow of blood through the malfunctioning coronary vessels can be reversed and increased, thereby increasing the well-being of the heart itself.

3. HYPERTENSIVE HEART DISEASES

Thirteen percent of deaths from cardiovascular diseases, or 97,000 of 745,000 total 1950 estimated cardiovascular deaths, are definitely due to hypertensive causes, and many more which cannot be strictly classified are also attributable to this type. An additional 20.9 percent of cordiovascular deaths cannot be accurately classified as to whether they are due to arteriosclerosis or hypertension, but they are due to one of the two.

The cause of high blood pressure is still unknown, yet advances have been made which offer relief to many hypertensive patients. Various types of diet have been developed which give evidence of being useful, including the low salt, low protein, low cholesterol, low calorie, and the rice diet. A number of Heart Institute grantees have and are contributing to understanding in this area. One investigator originated the rice diet, which has a beneficial effect in certain cases of high blood pressure. Improvement in patients following this regime has often been marked and sometimes dramatic. Investigators are now attempting to determine the biological mechanism which brings about this clinical effect.

Other studies are directed at establishing the factors responsible for the favorable effects of the diet, with the goal of modifying the monotonous and unpalatable diet so that it will be more acceptable to patients.

Low-sodium diets have been one of the most widely accepted developments for treating heart disease patients. A very recent advance to achieve low sodium retention in the body has been the development of a plastic substance, a cation exchange resin, which may be taken by mouth and which absorbs salt in the body. This substance will allow many patients to eat normal foods since the sodium can be eliminated from the body with the resin.

A surgical operation, called sympathectomy, has been devised whereby the cutting of certain nerves producing a striking reduction in blood pressure in some cases. In others, however, the operation has little or no effect. Studies supported by the Heart Institute are evaluating the different types of sympathectomy, the degree of removal of nerves necessary, and methods for determining in advance those individuals who would benefit from the operation.

It has been found by a Heart Institute grantee that nearly all persons with high blood pressure have a chemical in their blood which is not present in those with normal pressure. When this powerful substance, pherentasin, is injected in

rats, it quickly raises blood pressure. Scientists are already studying drugs which may neutralize pherentasin and thus help keep blood pressure normal, thus leading to a possible new effective treatment. Another investigator has found that the brain can release into the blood a chemical that raises blood pressure and is now working on a drug that will check its action.

Findings of other intensive studies have shown that high blood pressure in dogs can be treated with a certain kidney extract. Repeated intramuscular injections of hog renin produces an antirenin in the blood serum which neutralizes the effect of the renin produced by hypertensive dogs. The grantee has been able to prevent the development of experimental high blood pressure in dogs by prophylactic use of this method. Since dog antirenin does not neutralize human renins, the problem must be thoroughly studied in the monkey. This research holds out future possibilities for treatment of high blood pressure in human patients.

Research has indicated the significance of hormones and glandular functions as factors in high blood pressure. One investigator has been able to benefit a number of hypertensive patients by removing a part of the adrenal cortex. This treatment resulted in a marked drop in arterial pressure, and relief from headache and shortness of breath. Findings indicate the adrenal cortex may be an important link in the chain of factors responsible for continued high blood pressure.

4. SYPHILITIC HEART DISEASE

About 10 percent of patients with untreated syphilis develop cardiovascular syphilis. Approximately 1 percent of heart disease in the past was due to this cause.

Research is responsible for the marked decrease in the number of cases of syphilitic heart disease. The treatment and cure of syphilis by penicillin therapy virtually promises to eliminate this type of heart disease in the next few years. The discovery by Public Health Service scientists of the effectiveness of penicillin in curing syphilis in its early stages is expected to reduce future syphilitic heart disease to the vanishing point.

5. SUBACUTE BACTERIAL ENDOCARDITIS

This type of heart disease where infections attack the heart valves was 99 percent fatal only a few years ago. Persons with valvular damage, such as in rheumatic and congenital heart disease, are particularly susceptible to the disease.

By use of penicillin therapy, 80 percent of cases of subacute bacterial endocarditis can now be cured. Further research studies are progressing with the good prospect of raising this percentage. Advances have also been made in prevention of the disease. The prophylactic use of antibiotics before and immediately following dental extraction and other operations will prevent development of the disease.

6. HEART SURGERY

Surgical techniques are proving beneficial and sometimes remedial in several types of heart disease (as partly indicated above), in congenital, rheumatic, hypertensive and coronary heart disease. With advances now being made by Heart Institute scientists and grantees, prospects are bright for surgical treatment of conditions for which heretofore there has been no successful method of therapy.

A number of such heart conditions, including malformations, wounds and other types of heart damage, might be remedied by surgical means if the work of the heart could be relieved for the length of time necessary to perform an operation. Seven scientists receiving research grants have been working to perfect an artificial heart or a combination heart-lung machine which could temporarily replace the heart and lungs. Most of the knotty technical problems have been solved and the successful use of such an apparatus on human patients can be expected in the near future. This will provide a bloodless heart for operations, thus permitting operations not now possible. Aside from surgery, the device would be important in certain heart cases for temporarily relieving a failing heart and lung of part of their burden. This would allow the heart to rest and improve the chance of recovery where the organ is exhausted.

Surgical advances have been made in the repair of damaged blood vessels by the use of arterial grafts. Research has developed methods of reconstructing or making new arteries by grafting pieces of blood vessels. Artery banks have been established. Artery grafts have been successfully used in correcting the condition of coarctation of the aorta where there is a structural defect—the body's main bloodline is narrowed so that blood is restricted. Artery grafts are also being used for arm and leg injuries resulting from industrial and automobile accidents, where the condition frequently has resulted in thrombosis or arteriovenous aneurysms or has necessitated amputation.

Heart Institute researchers have also been investigating anesthetics, since the cardiac patient is particularly vulnerable to surgical procedures which require strong sedation and general anesthesia, especially if required for a long period of time. Study of pentothal, the most commonly used "short-acting" intravenous anesthetic, has disclosed that the drug has serious disadvantages since it localizes in body fat and has a slow rate of inactivation. When given for a long period of anesthesia, there is an accumulation of a large amount in the body which produces a depression of excessive duration. This research led to study of a number of new compounds which might be better. One that appears to have suitable characteristics is now under clinical trial.

7. CONGENITAL HEART DISEASE

Malformations of the heart present at birth in 1948 accounted for the death of 7,300 babies under 1 year of age, another 500 under 5 years, and 575 children between the ages 5 and 25.

Since the first successful operation for a congenital defect in 1938, tremendous strides have been made in surgical treatment of this type of heart disease. The "blue baby" operation originated in 1944 has allowed many patients to live much longer lives. By 1950, six kinds of malformations (patent ductus arteriosus, coarctation of the aorta, aortic ring, tetralogy of Fallot, tricuspid atresia, and valvular pulmonary stenosis) could be corrected by surgery. Much such research has been supported by the National Heart Institute, since its establishment in 1948, and scientists are currently being aided in developing methods for treating several additional types of malformations.

Investigations have disclosed several factors which may be possible causes of heart defects in a baby because the mother is affected during the first 3 months of pregnancy. These are virus infections, such as German measles, vitamin deficiencies and radiation. Continuing studies may lead to further discoveries and effective preventive measures.

8. INSTRUMENTS AND RESEARCH TOOLS

Research on heart disease involves the development of new devices and methods for studying the basic problems which confront the cardiovascular scientists. Origination of new tools and instruments is of great importance, since new knowledge of causes, diagnosis, therapy, and cures will depend on new and practicable approaches to specific problems. Many new techniques have been developed which are not only promising research tools, but have proven of value in clinical application.

The electrokymograph, an instrument developed by Public Health Service scientists in cooperation with a university group, records the border movements of the heart and great vessels. The instrument is a useful tool in cardiovascular physiology research and is beginning to have application in clinical diagnosis. Use of the device makes it possible to diagnose constrictive pericarditis, aortic insufficiency, certain arrythmias, and to estimate myocardial changes. An important development has been the possibility of utilizing the instrument as a quick, simple, and nonhazardous method for determining cardiac output and therefore the work capacity of a person with heart disease. The first conference on electrokmyography was sponsored by the National Heart Institute in 1950, and the proceedings have been published for the guidance of workers in the field.

The electrocardiograph is one of the principal diagnostic instruments and has been widely used by physicians for a number of years. This instrument records the electrical impulses of the heart and much progress has been made in interpretation of the tracings produced. A recent study by the National Heart Institute has found that lead I of the electrocardiograph will detect essentially the same amount of heart disease cases as will the use of all 12 leads. This indicates that lead I is practicable for mass screening purposes because of its speed and

simplicity. Further studies are being made on the possible use of this method as a case-finding tool.

Vector electrocardiography is a relatively new development by which it is hoped to improve diagnosis of various heart diseases and to determine the origin of all electrical impulses of the heart muscle.

The ballistocardiograph, an instrument for determining cardiac output or the volume of blood expelled by the heart, is becoming of considerable value in diagnosing heart disease and in detecting early heart failure. The Heart Institute is supporting several investigations to evaluate and standardize recordings of this apparatus, which is achieving increasing usefulness.

A special apparatus for the electronic mapping of the electrical activity of the heart is being improved. The device uses 50 or more contact points to study in detail the changes in electrical potential between various areas of the heart. These are recorded on film and projected for analysis and diagnosis. The new method, which already has thrown considerable light on muscular and nerve tissue changes in the heart, shows characteristics indicating heart disorders even when they are not revealed by electrocardiograms.

A heart sound-recording device has been developed with the help of Heart Institute scientists for high-fidelity recording and analysis of healthy and abnormal heart sounds. The instrument is being used to assist improvement in diagnosis. Through its use, medical students and physicians are aided in judging the quality of heart sounds as indicators of heart conditions.

Moving-picture techniques are being perfected by which the human heart can be photographed in action. Heart Institute grantees in several universities have produced films indicating that this method will assist diagnosis of certain heart diseases, since it allows the heart and blood vessels to be visually studied and the determination of the exact circulatory abnormality. Patients are given injections of a dye which renders the blood opaque on an X-ray screen. Then with X-ray devices, automatic camera and electronic timing mechanisms, the course of the blood is photographed as it passes through the heart and major vessels. The method is expected to be of great value to surgeons.

By means of a new tapping device, developed in the past year by National Heart Institute scientists, living arteries can now be studied with precision. The elasticity of the artery and the changes in its volume can be calculated from the measurement of blood pressure and wave velocity to one one-thousandth of a second. Disorders of the heart and circulation and the effects of such diseases of the vessels as arteriosclerosis can be examined by this method. It is hoped that the new instrument eventually will be a diagnostic aid in determining the aging of blood vessels. It may also shed new light, not only on the tissues of which the blood vessels are made, but on the entire circulation.

II—The Needs In Heart Research

If the pace of heart research in the United States—and its application—can be accelerated, the coming decade may see almost-undreamed-of advances: the virtual wiping out of rheumatic fever and rheumatic heart disease; tests to discover arteriosclerosis and arteriosclerotic heart disease early, and preventive curative measures of great effectiveness; prophylaxis and positive therapies that will substantially reduce the toll of hypertension and hypertensive heart disease.

But the hopes for these accomplishments are based largely upon the fulfilling of the major needs of the National Heart Institute's program:

1. Need for expansion and improvement of heart teaching in medical schools

The rapid and marked advances of heart research have a disconcerting impact upon medical education. Not only is the subject matter of medical-school courses influenced as new knowledge is obtained, but, because of advances in clinical methodology and instrumentation, the mechanical and physical means of medical instruction are also affected. To maintain up-to-date instruction on the heart diseases it is necessary that medical schools put extra time, effort, and money into a constant improvement of their cardiovascular teaching program.

In fiscal year 1950, a limited grant program with an initial appropriation of $750,000 was begun to assist the medical schools in strengthening and improving their heart teaching. This program has been sustained at this low level in succeeding years. Owing (*a*) to the inadequacy of funds and (*b*) to the fact that

only a part of the medical schools were able to file their applications early enough to be included for support at the beginning, this program has been severely handicapped. The portion of 4-year medical schools receiving these grants are allotted only $14,000 per year, the 2-year schools only $8,000. Far from all the medical schools in the United States are participating.

The need in the remainder is equally great. They, as well as the schools currently receiving heart teaching grants, have manifested both interest and willingness to undertake expanded and improved heart teaching. That they are themselves financially unable to undertake and continue such a program is a well-known and established fact. More adequate support, at a level of $25,000 for 4-year schools and of $15,000 for 2-year schools, should be provided not only for the part of the medical schools currently participating, but also for all the schools. In equity, as well as in need, grants should be available for all of the medical schools.

The particular direction the effort to strengthen and improve heart teaching must take varies from school to school and is determined by the medical school itself. In some places the major need is for differently trained personnel, in others for improved teaching equipment, and in still others for an expanded curriculum or greater coordination.

Although severely limited, the heart teaching grant program in its short span has already made practical achievements. Illustrative of this are the following specific examples, reported by the schools themselves:

School I: "The department of physiology inaugurated a program of weekly demonstration lectures in various heart diseases in addition to the regular teaching schedule. The funds made it possible to enlarge the outpatient pediatric cardiac clinic and make this large clinical material available for the instruction of medical undergraduates. In addition, the new arrangement has permitted the inclusion of regular teaching rounds devoted to cardiology within the training of junior medical students."

School II: "A survey of the curriculum was carried out to determine where alterations or modifications could be made in order to stress important cardiovascular material. Many benefits have evolved from this study. Better interdepartmental correlation now exists; broader use of medical faculty and equipment has been encouraged; and less duplication, with a saving of time both for students and faculty, is now manifest in this curriculum. The cardiovascular teaching grant has produced a healthy degree of critical examination and appraisal of the teaching program and has stimulated changes in the curriculum which will have lasting beneficial effects."

School III: "Effectiveness of the program and need for its continuation are accentuated by the development of a public-patient heart house for teaching and patient care, and the development of a pulmonary function laboratory for the study of thoracic, cardiovascular, and other anomalies."

Investment in this program is an investment in better heart care for our citizens. For the medical students of today are the doctors of tomorrow. It is important that they be given strong courses of instruction in diseases of the heart and blood vessels and the latest advances in methods and techniques be thoroughly covered. The percentage of heart-disease cases in the average medical practice is high—over 10,000,000 persons in the United States have disorders of the heart and circulation.

2. Need for clinical traineeships in heart disease for general practitioners

National Heart Institute grants for clinical traineeships underwrite the training of graduate physicians in newer techniques in the field of cardiology. This program is designed to improve the general level of practice with regard to heart disease by providing general practitioners and young internists with a sustained, intensified period of up-to-date instruction.

Doctors of medicine under 40 years of age who have successfully completed a general internship of at least 1 year, and have had at least one additional year of experience and training, are eligible.

If this program were not in existence, a serious gap would be left in the national attack on heart disease. Yet, because of the low level of support accorded, it has been possible to provide training for less than 50 physicians a year throughout the entire country. In the past fiscal year, for example, 48 physician-trainees, selected from the many able and qualified applicants, received these grants which are provided in the amount of $3,000 a year for those without dependents and $3,600 for those with dependents.

This program is of marked benefit not merely to the physicians themselves but also to the community. Its beneficial results are limited only by the fact that such a small number of physicians can be trained with the available funds.

Through this program young physicians are fitting themselves for clinical phases of activity in the cardiovascular field; both in medical practice and academic medicine. Some of these men have been assisted, as one result, of specialized training received, toward their specialty board requirements. Others, having already met these requirements, have gained greater skill in improved cardiovascular methods, obtained partly as a result of participating as a member of a team carrying out such procedures. Some of the trainees receive a small part of their training by observing or assisting in different clinical researches and thereby are enabled to approach their future clinical problems with greater insight and greater recognition of the numerous factors involved. Under supervision they are trained to assume greater clinical responsibility in diagnosis and therapy, and thus are given important apprenticeship training under an experienced sponsor. This program is producing a small number of better trained physicians among those upon whom the health of the Nation rests.

The following specific examples are indicative of the worth of the clinical traineeships program:

Trainee with M. D. from University of Pennsylvania.—Aged 29. Married with dependents. Outstanding record as intern and resident. His plans for future: clinical practice and clinical research in the field of cardiovascular diseases. Received training in a southern State.

Training program: Trainee read and interpreted electrocardiograms in the hospital heart station from 8 to 10 a. m. with checking by the cardiologist in charge. Instruction in electrocardiography was received from visiting cardiologists. The remainder of the morning was utilized making rounds on the private floors with visiting heart specialists and in reading at the library. Afternoons were spent making rounds on the charity wards with the medical residents, answering consultations to the various charity services, and in further study at the library. Conferences on technical subjects and clinic staff meetings were attended. Also, some experimental work was conducted by the trainee on the intravenous and intramuscular use of quinidine, and a case report of intrauricular block was prepared.

Result: The trainee reported that, because of the serious illness of the chief of staff of a county hospital near where the trainee was located, the hospital had to close, creating an emergency and leaving the community without proper medical coverage. The trainee and two other physicians were invited to meet this need, and, as he states:

"It is our opinion that we can supply this county with the best of medical care. I have certainly derived great benefit and knowledge from my traineeship and feel that it will be of great value in my new undertaking."

Trainee with M. D. from University of Minnesota.—Age 29. Married with dependents. Plans for future: The practice, teaching, and investigation of internal medicine, preferably in close association with a medical school. Awarded a heart traineeship to receive training at a Midwestern medical school.

Training program: Rotation through clinical services, including out-patient and cardiology clinics. Reading electrocardiograms and carrying out cardiac fluoroscopy under supervision. Assisting in introduction of greater use of unipolar electrocardiography in the hospital and in study of correlation between cardiac size, chamber enlargement or strain, body type, and the electrocardiogram. Observation and participation in cardiac catheterization. Continuation of research on hypertension under supervision of head of department, investigating the possible effects of injected porphyrins on experimentally induced hypertension in rats. Attendance at weekly radiologic, clinical pathologic, electrocardiographic, departmental and hospital staff conferences, and journal club.

Result: Entered private practice in the field of internal medicine, anticipated to be largely in the cardiovascular diseases. Expects to continue work in heart disease at the University of Minnesota Hospital and the Minneapolis General Hospital.

Trainee with M. D. from University of Iowa.—Age 32. Married with dependents. Plans for future: To qualify in internal medicine, especially cardiology, with a view to practicing cardiology and clinical research, as well as teaching. Awarded a heart traineeship to receive training in the East.

Training program: First 5 months at a children's heart hospital, assigned to the care and diagnosis of heart disease in children admitted. This was principally rheumatic fever, with some congenital heart cases. Taught class in physi-

cal diagnosis, emphasizing diagnosis of the heart, and carried on some research under supervision. Subsequent 7 months at a foundation. Engaged in consultation work in cardiology through the hospitals; diagnosis and treatment of clinic patients admitted to the clinic; performed routine cardiac fluoroscopies and electrocardiographies; attended seminars and conferences. Did some work with a cation-exchange resin on several edematous clinic patients. Carried on research of the sympathetic amines on the cardiovascular system.

Result: Accepted a position in a Northwestern State as an outgrowth of interest in cardiopulmonary physiology and clinical training in cardiology. This position enables continuation of work in clinical cardiology and the opportunity for clinical research in the cardiopulmonary field.

The number of physicians that can be trained with the available funds, in the clinical aspects of heart disease is completely insignificant in comparison with the need for more physicians with this specialized training. The number of cardiologists and physicians with competency in heart disease is seriously disproportionate to the amount of heart disease sufferers in the country: at present there is only about one of these physicians for every 2,700 heart cases. If each physician with special competency in heart disease takes care of 1,000 patients a year, certainly a big case load; this still leaves millions of cases who do not receive adequate attention.

3. Need for heart research fellowships.

Efficient, trained researchers are too few in number not only in the special field of the heart diseases but also in basic disciplines such as physics, chemistry, biology, physiology, and so on, from which come scientific knowledges of importance to the attack on heart disease.

It has been possible to provide support only for less than 100 heart research fellows per year with the available funds. Operation of this program is adding a new and more highly trained group of younger scientists to the research potential of the nation at a time when there is critical need and demand for such personnel. The program is increasing the caliber of research workers in medical and allied fields. It is resulting in definite research advances, additions to our knowledge of heart disease, from the work that these heart research fellows do as a part of their training. Examples of this latter benefit appear frequently in medical and scientific journals in reports of various studies authored by heart research fellows either alone or in collaboration with others.

The heart fellowships are awarded on two levels; the predoctorate and postdoctorate. With but one or two exceptions, all predoctorate fellowships to date have culminated in the award of the doctorate degree to the fellowship holder. The postdoctorate awards have provided advanced training in the chosen field of research of the men and women. This program has provided academic medicine and research with a pool—though a small one—of trained investigators at various levels of development, but with uniformly high records. That it is achieving good results is also shown by the fact that 92 percent of all Public Health Service research fellows are now engaged in full or part-time research.

Because of the many promising avenues of investigations in heart disease that have been opened up in the past few years, the field of cardiovascular diseases and the basic related sciences is particularly in need of a greater number of highly trained younger research workers who are at a stage in their development at which they can establish and carry on important research studies.

Each year since the beginning of the heart research fellowships program, there have been very many excellent applicants who have had to be rejected, not because of lack of merit, but because of the limited funds available. The most rigid screening which all of the applications receive, with many hours and days spent in weighing carefully the merits of the various applicants and measuring them, results in awards to only the very top few because of limitations in funds. Many brilliant and promising young men and women have had to be passed over. This lack of adequate support for a key facet of the national heart program results not only in discouragement to individuals who can and should enter and remain in heart and allied research, but also results in keeping heart research at a slower pace than that at which it could profitably proceed, thus to a degree and in a very real sense postponing the medical benefits which we should expect in the next 5 to 10 years.

4. Need for additional heart-research facilities

Approximately $6,059,000 comprises the total that has been appropriated for heart research facilities construction since the establishment of the National Heart Institute. In recommending the awarding of these funds, the National Advisory Heart Council has been faced with perhaps its most difficult and critical problems, because applications totaling over $32,000,000 in grants requests were received from non-Federal research institutions, hospitals, and medical schools interested in and eager to construct badly needed additional heart-research facilities. The council, in groups and as individual members, have made (and continue to make) at personal sacrifice, many visits to all parts of the country to institutions everywhere. They studied and discussed long and carefully the merits of the applications for these construction funds. The magnitude of the need and the fact that it was a real and not an apparent need, were clear. They recommended the allotment of the allocated funds as wisely as possible—and today 26 heart research laboratory construction projects are under way or completed in 17 States. But the needs of institutions which did not receive these grants, expressed in the requests which were not able to be granted from the limited appropriations, continue to grow more and more severe, as council members report.

Research institutes and buildings, old and new, connected with hospitals and medical schools and in the process of construction or expansion have been seen where there is no adequate space for heart research although there were researchers available who could do heart studies. Such space, for laboratories and small research wards, is an essential need and should be provided throughout the country so that heart research can be carried on a wider as well as a deeper scale.

For the past 2 years no funds have been allotted for this purpose. If an adequate pattern of research activity is ever to be developed over the complex cardiovascular field, its present gaps covered, and the greatest achievements made in the next decade, then further facilities must be provided.

5. Need for additional heart research projects

Scientific statements of accomplishments, preliminary and annual reports and publications in medical and scientific journals portray the advancement of knowledge in the cardiovascular field that has accrued to the citizens of the United States through the heart research projects grants program, although it has been in operation actually only 3 years.

A complete list of these accomplishments, represented in the published findings of the scientists, would show a tremendous range of basic and clinical advance along the whole frontier of heart disease and would require a voluminous reference list. To assay this new information added to scientific knowledge during the past 3 years partly or chiefly as a result of the heart research projects grants and with certainty to announce or predict its significance is, of course, not humanly possible. A seemingly unimportant discovery of today or last year may provide a clue or become a turning point which leads to, say, in 5 years the development of a preventive measure for hardening of the arteries.

It can be, however, established as a fact that the heart research work supported by National Heart Institute grants has resulted in a widening and deepening of the total cardiovascular research of the country. It can also be said that many of the advances hailed in the press and more cautiously acclaimed in scientific gatherings have been achieved by investigators receiving heart research grant support.

For example:

1. The artificial heart-lung machine's development;
2. The discovery and intensive probing into the significance of the giant molecules and their association with hardening of the arteries;
3. The expansion of heart surgery to help several types of congenital heart malformations and rheumatically damaged hearts;
4. The knowledge that ACTH and cortisone given together apparently influence the course of rheumatic fever better than either alone;
5. The knowledge that these hormonals do not as yet provide the complete answer in rheumatic fever treatment but do help certain types of cases;
6. The development of many new drugs and the improvement of others * * * to stop or prevent heart arrythmias that result in many deaths, to prevent blood clotting not only in coronary attacks but also in pulmonary embolism, also a grave problem, to better relieve or eliminate pain in crucial heart attacks;

7. The proof that the rice diet has definite value for hypertension.

The work done through heart research projects grants would be expanded if additional funds were available. Recent inquiry, for example, in three medical schools widely separated geographically, shows that twice as much worth while cardiovascular research can be efficiently carried out at those schools as is currently being done, if more funds could be provided.

6. Need for intramural research of the National Heart Institute

Present funds do not adequately provide for enough scientists and scientific work to be undertaken by the Institute. This research, both clinical and laboratory, supplements and complements the extramural research program provided through research grants projects; it fills in gaps in the attack on heart disease which the extramural program does not fully cover; it is already doing work of brilliant promise and has made outstanding achievements.

Some of its accomplishments are:

1. Testing and improving and standardizing anticlotting drugs which save and prolong the lives of victims of coronary thrombosis or heart attacks.

2. Developing and testing and improving new instruments to detect heart disease in its early stages—instruments such as the electrokymograph which shows much promise as a diagnostic tool and is already a valuable research instrument.

3. Instituting, through one of its sections, a human "artery bank" from which material has been supplied to make artery grafts, which have saved and prolonged the lives of heart patients.

4. Its researchers have developed in cooperation with university, industry, and American Heart Association workers a powerful new drug—procaine amide—which abolishes and prevents irregular rhythms of the heart known as ventricular tachycardias, which can be fatal. The new drug acts quickly and can be given by mouth; it is more powerful and less toxic than quinidine, a drug now used for this condition. The new drug is now available to physicians.

Adequate expansion of the Institute's research, particularly in terms of the intensification and extensification of its coverage of the many important scientific problems it seeks to solve in heart disease, will provide a significant contribution toward accelerating progress in the Nation's heart research.

7. Need for expanded public health application of newer knowledge and techniques

Throughout the States there has been an increasing surge of interest in developing well-rounded community programs for the control of heart disease. This interest has grown strongly since the inception of the support provided through the Federal heart program because of the stimulus of that program. Through this and cooperative relationship with the American Heart Association and its local affiliates, real working partnerships have been formed in many places between health departments and heart associations. Thus, many communities have begun to develop or have materially improved their heart disease activities.

The National Heart Institute, Public Health Service, heart program provides grants-in-aid technical assistance to the States. Without these grants, most of the States would not have progressed to the point at which they are now. The funds provided for grants-in-aid have been sufficient only for a limited implementation of programs—in many cases being merely enough to allow a State to begin the establishment of the necessary organizational structure or to establish one good heart clinic to serve as a pilot or training point for the State. The funds provided for technical assistance have permitted the Public Health Service only a small staff for this important sphere of work; they have been sufficient only for two demonstration projects to be established under Service auspices to develop and test measures that, when found sound and useful, could be taken up and used by any community in its program.

The needs here are clear; they are thoroughly realistic and practical. One need is for a reasonable increase in funds to allow the States to expand to a more nearly adequate degree measures for the application of the very considerable public health knowledge which we already have but which have not been widely or intensively applied throughout the country. For instance, the thorough prosecution of the public health program of prophylaxis with penicillin against rheumatic fever could, it has been said, result in the conquest of this disease.

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Another need is for additional funds with which the Public Health Service can improve and expand its technical assistance services much desired and called upon by the States. (It has not been possible hitherto to serve the States adequately.) If the service can be enabled to increase these services through additional staff and work in the field in cooperation with States and local health departments, measurable progress can be made in the next year in developing more and better community programs.

Another need in the sphere of these activities is for funds to be made available for grants for initial field research into methods of rehabilitating persons with cardiovascular disabilities. Among these persons are many skilled craftsmen, laborers, executives, businessmen, farmers, the whole range of gainfully employed people. Thousands upon thousands of these heart patients are not today usefully occupied, yet potentially they can be restored to employability. Many other thousands, less critically ill at the present, could be maintained in employment.

This group of handicapped is increasing year by year; an accumulating number of people is being forced out of work and useful living by heart disease. At the same time, and partly because of this, there is a decreasing reservoir of trained manpower with which to meet the critical needs of defense and other production. The undertaking of a planned effort, through field research test and pilot projects in rehabilitation of cardiac handicapped, would be to the national interest. The ability of cardiacs to increase their work capacity through training procedures, to be restored to or maintained in employability has been demonstrated in a few places. The establishment in carefully chosen areas of research studies aimed toward the development and evaluation of present and new rehabilitation measures would be a sound means of securing valuable information that could be applied on a Nation-wide basis. These projects would place special emphasis upon research that would result in valid methods to determine the work tolerance of cardiacs so that they could be safely employed at their maximum skill.

No such Nation-wide effort is under way, and the underwriting of this important endeavor through providing the Public Health Service with funds for special rehabilitation research will return economic dividends as well as humanitarian benefits.

National Heart Institute

	1953 budget proposal
Grants:	
1. Grants to medical schools and other institutions and to individuals for research and training:	
(*a*) Research projects	$8,500,000
(*b*) Research fellowships	1,000,000
(*c*) Construction of research facilities:	
Contract authority	14,000,000
Obligational cash	4,000,000
(*d*) Expansion of teaching of medical subjects relating to heart diseases: Obligational cash	1,875,000
(*e*) Training stipends: Obligational cash	1,000,000
2. Grants to States for detection, diagnosis, and other control activities	3,000,000
Direct operations:	
1. Research	2,913,900
2. Other direct operations:	
(*a*) Review and approval of research and training grants	76,300
(*b*) Technical assistance to States	445,000
(*c*) Administration	220,300
Total	37,030,500
Contract authority for construction of research facilities	—14,000,000
Total obligational cash	23,030,500

Appendix C

National Heart Institute

Description	1952 current budget	1953 Budget Bureau estimate	1953 Heart Committee budget recommendation
Grants:			
1. Grants to medical schools and other institutions and to individuals for research and training:			
(a) Research projects	[1] $4,809,000	[1] $4,000,000	$8,500,000
(b) Research fellowships	300,000	300,000	1,500,000
(c) Construction of research facilities:			
Contract authority	0	0	14,000,000
Obligational cash	0	0	4,000,000
(d) Expansion of teaching of medical subjects relating to heart diseases	741,000	741,000	2,140,000
(e) Training stipends	150,000	150,000	1,200,000
2. Grants to States for detection, diagnosis, and other control activities	1,500,000	1,500,000	2,750,000
Direct operations:			
1. Research	1,909,000	2,466,300	2,466,300
2. Other direct operations:			
(a) Review and approval of research and training grants	76,700	76,700	76,700
(b) Technical assistance to States	346,000	280,000	450,000
(c) Administration	235,300	235,000	235,000
Total	10,067,000	9,749,000	37,318,000
Contract authority for construction of research facilities	0	0	−14,000,000
Total obligational cash	10,067,000	9,749,000	23,318,000

[1] Includes $800,000 for consolidation of national blood program (Heart Institute: $400,000; $200,000 each transferred from "Operating expenses, National Institutes of Health" and the Cancer Institute).

Institutions which have formally indicated to the National Heart Institute their need for heart-research construction grant funds either by application or letter of intent

Medical College of Alabama (Birmingham)	$416,931
Alabama Heart Association (Birmingham)	[1]
University of Southern California (Los Angeles)	515,000
University of California Medical School (San Francisco)	1,250,000
University of California Medical School (Los Angeles)	884,736
College of Medical Evangelists (Loma Linda)	[1]
University of California—Donner Laboratories (Berkeley)	[1]
Georgetown University (District of Columbia)	909,960
Howard University School of Medicine (District of Columbia)	250,000
Emory University School of Medicine (Atlanta, Ga.)	500,000
University of Chicago Medical School	265,000
Michael Reese Hospital (Chicago, Ill.)	2,647,950
University of Illinois College of Medicine (Chicago)	2,350,000
Loyola University-Stritch School of Medicine (Chicago)	116,000
Mount Sinai Hospital (Chicago)	125,000
La Rabida Sanitarium (Chicago)	[1]
Indiana University School of Dentistry (Indianapolis)	[1]
Tulane University of Louisiana, School of Medicine (New Orleans)	525,500
Johns Hopkins University School of Medicine (Baltimore)	781,928
House of Good Samaritan (Boston, Mass.)	62,250
Massachusetts General Hospital (Boston)	635,000
Children's Medical Center (Boston)	450,000
Jewish Memorial Hospital (Boston)	128,500
New England Center Hospital (Boston)	220,000
Boston University School of Medicine	58,810
Massachusetts Institute of Technology (Cambridge)	[1]
Wayne University School of Medicine (Detroit)	377,226
University of Minnesota Medicine School (Minneapolis)	1,174,000
Ancker Hospital (St. Paul, Minn.)	96,200
Washington University School of Medicine (St. Louis)	200,000
New York University College of Medicine (New York City)	1,140,500

University of Buffalo School of Medicine	$96,583
Bellevue Hospital (New York City)	150,000
Columbia University College of Physicians and Surgeons (New York City)	1,000,000
Cornell University Medical College (New York City)	200,000
Montefiore Hospital (New York City)	418,700
Mount Sinai Hospital (New York City)	300,000
New York Hospital (New York City)	800,000
University of Rochester School of Medicine and Dentistry	414,368
Albany Medical College	77,500
Children's Hospital (Buffalo, N. Y.)	[1]
Bowman Gray School of Medicine of Wake Forrest College (N. C.)	848,900
Syracuse University College of Medicine	1,004,350
Duke University School of Medicine (Durham, N. C.)	1,347,000
University of North Carolina Medical School (Chapel Hill)	516,800
Ohio City Hospital (Cleveland)	[1]
Western Reserve University (Cleveland)	275,000
University of Cincinnati College of Medicine	146,320
Ohio State University College of Medicine (Columbus)	300,000
Jewish Hospital (Cleveland)	[1]
Oklahoma School of Medicine (Oklahoma City)	225,000
University of Oregon Medical School (Portland)	230,000
University of Pennsylvania Medical School (Philadelphia)	179,900
Jefferson Medical College (Philadelphia)	1,000,000
Temple University School of Medicine	900,000
Women's Medical College of Pennsylvania (Philadelphia)	169,645
Philadelphia General Hospital	445,500
Medical College of State of South Carolina (Charleston)	485,000
University of Tennesee College of Medicine (Memphis)	468,600
Vanderbilt University School of Medicine (Nashville)	503,700
University of Tennessee (Knoxville)	[1]
Southwestern Medical School of the University of Texas (Dallas)	500,000
Baylor University College of Medicine (Houston)	[1]
University of Vermont College of Medicine (Burlington)	[1]
University of Virginia Department of Medicine (Charlottesville)	[1]
Medical College of Virginia (Richmond)	[1]
University of Washington Medical School (Seattle)	500,000
West Virginia University School of Medicine (Morgantown)	5,860
University of Wisconsin Medical School (Madison)	[1]
University of Pittsburgh Medical School	400,000
Total	29,989,217

[1] Specific request not made.

Facts about the need for more appropriations

A. What is the extent of the deaths from diseases of the heart and circulation? No. 1 killer: 637,679 Americans in 1948.

B. What is the extent of the disabilities? Between 9 and 10 million Americans.

C. How much did the National Heart Institute have to spend on research (exclusive of construction) per death against diseases of the heart and circulation last year? $8.57.

D. What do we spend on other types of research? $73,860,691[1] was spent in fiscal 1949 for research in control and cure of plant and animal diseases by in the Department of Agriculture.

I. How much has the budget allowed and the House approved (subject to certain reductions caused by the Taber-Thomas and Jensen amendments) for 1951, for the entire program of the National Heart Institute?	
Excluding all contract authority and liquidation cash	$8,800,000
Contract authority: (None for construction of research facilities)	None
Liquidation cash: ($4,459,000 for construction of research facilities)	5,350,000

[1] This includes $45,889,811 for the campaign of control and eradication of foot-and-mouth disease conducted in Mexico.

Facts about the need for more appropriations—Continued

Including all contract authority and liquidation cash	$14,150,000
Contract authority (None for construction of research facilities)	None
Liquidation cash: ($4,459,000 for construction of research facilities)	5,350,000
II. What amount have citizens groups testified for as needed for 1951?	43,384,000
Including all contract authority and liquidation cash:	
Contract authority: ($10,000,000 for construction of research facilities)	10,000,000
Liquidation cash: ($4,459,000 for construction of research facilities)	5,350,000
Obligational cash: ($8,000,000 for construction of research facilities)	28,034,000
III. What was passed by the Senate last year?	29,117,000
Contract authority: ($7,000,000 for construction of research facilities)	12,725,000
Obligational cash: ($3,000,000 for construction of research facilities)	16,392,000
(*a*) What was finally agreed to in conference?	[1] 16,161,500
Including all contract authority and liquidation cash:	
Contract authority: ($4,459,000 for construction of research facilities)	5,350,000
Liquidation cash: (None for construction of research facilities)	None
Obligational cash: ($1,600,000 for construction of research facilities)	10,811,500
IV. Approximately how much of this was used for research projects grants-in-aid to colleges, hospitals and universities in fiscal 1950?	3,820,000
V. How much was used for the construction of needed research facilities at these institutions in fiscal 1950?	6,059,000
Including:	
Contract authority (to be liquidated in fiscal 1951)	4,459,000
Obligational cash	1,600,000
(*a*) How much is included in the 1951 budget for construction of needed research facilities	Nothing
VI. How much money was spent for intramural research in fiscal 1950?	1,407,939
VII. About how much money was given for research by leading voluntary agencies in this field in 1949	[2] 1,754,615

[1] Includes transfer of $86,500 from National Institutes of Health.

[2] Helen Hay Whitney Foundation, approximately $200,000; New York Heart Association, $287,335; Life Insurance Medical Research Fund, $667,280; American Heart Association, $380,000; other affiliates of American Heart Association, $220,000.

Appendix D

National Institutes of Health Fellowship Awards[1] Approved for Payment From Fiscal Year 1951 Funds to Individuals in Non-Federal Institutions

Amount and percentage of total ($1,472,871) awarded by institutions

Institution	Number of grants	Amount	Percent
Harvard University, Massachusetts	56	$162,504	11.03
University of Chicago, Illinois	36	95,604	6.49
Columbia University	28	82,626	5.61
Johns Hopkins University	21	60,654	4.12
University of Pennsylvania	23	60,494	4.11
University of California, Berkeley	19	55,745	3.78
Yale University	20	53,185	3.61
University of Wisconsin	22	48,346	3.28
Cornell University	16	41,953	2.85
University of Minnesota	14	38,602	2.62
Memorial Hospital, Cancer	10	33,150	2.25
Western Reserve University	11	32,138	2.18
New York University	10	31,650	2.15
Washington University, St. Louis	10	27,580	1.87
University of Rochester	10	27,115	1.84
Stanford University	9	25,390	1.72
University of Illinois	9	25,100	1.70
California Institute of Technology	7	24,021	1.63
University of Utah	7	23,218	1.58
Jackson Memorial Laboratory, Maine	7	20,496	1.39
University of Washington	6	19,128	1.30
Duke University	9	18,354	1.25
Massachusetts General Hospital	6	18,342	1.25
Northwestern University	7	15,360	1.04
Boston University	6	14,609	.99
University of Kansas	5	14,450	.98
University of Indiana	5	14,150	.96
University of California, Los Angeles	6	14,020	.95
University of Cincinnati	4	13,750	.93
George Washington University	6	13,333	.91
Children's Medical Center, Boston	3	13,184	.90
Massachusetts Institute of Technology	4	12,959	.88
Vanderbilt University	3	11,400	.77
Princeton University	4	11,200	.76
P. B. Brigham Hospital, Massachusetts	3	10,500	.71
Rockefeller Institute, New York	3	10,200	.69
Jefferson Medical College	3	9,630	.65
Iowa State University	4	9,400	.64
University of London	4	9,317	.63
University of Colorado	4	9,305	.63
University of Buffalo	3	8,650	.59
Cambridge University	2	8,600	.58
University of Maryland	4	8,413	.57
University of Pittsburgh	2	7,250	.49
University of Southern California	4	7,225	.49
St. Luke's Hospital, New York	2	7,200	.49
University of Paris	2	7,136	.48
Ohio State University	3	7,061	.48

[1] Included in the report are 530 awards which are distributed among 98 institutions located in 34 States, the District of Columbia and 8 foreign countries.

Note.—There are also 50 institutions each of which has received 0.47 percent or less of the total approved for payment. In these 50 institutions there are 68 awards totaling $179,174 or 12.16 percent of the total

Amount and percentage of total ($1,472,871) awarded by State or country

State or country	Number of grants	Amount	Percent
New York	90	$263,000	17.86
Massachusetts	85	253,537	17.21
Illinois	54	142,664	9.69
California	45	126,401	8.58
Pennsylvania	32	88,373	6.00
Maryland	25	69,067	4.69
Ohio	19	56,249	3.82
Connecticut	20	53,185	3.61
Wisconsin	22	48,346	3.28
Minnesota	14	38,602	2.62
Missouri	14	36,587	2.48
Utah	7	23,218	1.58
Indiana	8	20,800	1.41
British Isles	8	20,768	1.41
Maine	7	20,496	1.39
North Carolina	10	20,036	1.36
Washington	6	19,128	1.30
Tennessee	6	17,650	1.20
District of Columbia	7	16,933	1.15
New Jersey	6	16,150	1.10
Kansas	6	16,000	1.09
Iowa	5	10,863	.74
Denmark	3	9,797	.67
Colorado	4	9,305	.63
France	2	7,136	.48
Switzerland	2	6,940	.47
Canada	2	6,900	.47
Virginia	2	6,617	.45
Louisiana	2	6,132	.42
Oregon	2	5,950	.40
Oklahoma	2	5,550	.38
Sweden	2	4,123	.28
Michigan	1	3,600	.24
Vermont	1	3,042	.21
Alabama	1	3,000	.20
Germany	1	3,000	.20
Florida	1	2,350	.16
Nebraska	1	2,350	.16
New Mexico	1	2,350	.16
South Carolina	1	2,350	.16
Georgia	1	1,950	.13
Rhode Island	1	1,950	.13
Belgium	1	426	.03

Mr. FOGARTY. All right, Dr. Katz, are you next? This is your first appearance before this committee, is it not?

Dr. KATZ. Yes, sir.

Mr. FOGARTY. Will you give your background for the record and then after you have finished, Dr. Blades, will you give your statement and then we will open the questioning.

STATEMENT OF DR. LOUIS N. KATZ

Dr. KATZ. I am Dr. Louis N. Katz, of Chicago. I am presently president of the American Heart Association and for the past 3 years I was chairman of its research committee. I am director of cardiovascular research at Michael Reese Hospital in Chicago. I am professorial lecturer in physiology at the University of Chicago. I am permanent honorary president of the Inter-American Cardiological Society, and I am on the executive committee of the International Cardiological Society.

In the last 6 months or more since June 15 I have traveled 42,000 miles round the country in connection with American Heart Association affairs. I will, by the time my time is over, have stopped and talked in about 24 of the 48 States in this country.

I am here in my private capacity because of my interest in cardiovascular research, heart, and blood-vessel research. I have been for the past 30 years physician, scientist, spending full time in this field. This is the first time I have talked to any congressional committee, and if my manner is not according to Hoyle, I am sure you will forgive me.

I am told I am supposed to present a prepared statement, which I herewith do, and I would like to just talk along for a bit on a few items.

(The prepared statement submitted by Dr. Katz is as follows:)

There is no more urgent health problem than protecting the hearts of the American people. The statistics on heart and blood-vessel disease are undoubtedly known to you and I need not belabor them. Three-quarters of a million deaths were placed in its account last year. Some 60 or 70 million people in the United States living today can be expected to die of 1 of the 20 or more heart and blood vessel diseases if we do not find the answers we seek. Ten million of our citizens—1 out of every 15—are hindered to some degree from living a full, normal, active life because of heart disease. It has led to many rejections from military service and has limited the full use of the manpower pool of this country in its preparedness effort.

Heart and blood vessel disease is by far the most important disabling affliction affecting the health of American people. It is the most crippling of our serious ailments. The fight against heart disease has become a serious and inescapable responsibility for all of us who are concerned with the welfare of the Nation in the years to come.

The present seriousness of the heart disease problem is obvious. The prospect for the future is even more grave. This is so because our population is steadily aging, and while the cardiovascular diseases strike all ages, the older age groups are particularly vulnerable. Without a sustained, full and concerted attack, the problem will continue to grow and furnish even greater cause for alarm.

I hasten to add, however, that scientific conditions were never before more favorable to launch an attack—an attack whose ultimate success is assured provided only the effort is commensurate with the magnitude of the problem under assault. The need is for a continuing and expanding aiming fundamentally to find out how better to recognize, treat, and prevent a group of diseases by new discoveries, and to disseminate the existing knowledge to all.

With recent advances in medical knowledge, the trend has been away from the study of acute disabilities toward the consideration of chronic illnesses. Diseases of the heart and blood vessels are the most important of these chronic illnesses, both by virtue of the number of people afflicted and the possibilities existing for improving their condition. Not all of the 10 million persons with heart and blood-vessel disease are bedridden. Many of them are up and about, doing their normal type of activity without much limitation. It is imperative that more of them fall into this last category. People can live comfortably with heart disease, and be happy and productive citizens.

The beginnings made both in research and treatment of heart diseases in the past few years have been enormously encouraging. The progress made has equaled, perhaps even overshadowed that made during all of the previous centuries.

This hope for patients with heart disease was not apparent 20 years ago nor perhaps even 10 years ago. Among the important advances made has been the prophylactic use of penicillin and the sulfa drugs to prevent recurrences of rheumatic fever. Because of research, surgical methods are now available for correcting several defects of the circulatory system in victims of congenital heart disease. Some valve defects resulting from rheumatic fever are now operable with results that verge on the miraculous. Catheters can now be passed into the heart to record pressure and oxygen, and so aid diagnosis and determine operability. New X-ray techniques have now become helpful. Heart failure is now being more adequately treated. Administration of antibiotics is now rapidly reducing the number of syphilitic heart disease cases. It is now possible to cure over three-fourths of all subacute bacterial endocarditis cases, while formerly death occurred almost universally in this disease. Anticoagulants now considerably reduce mortality and prevent many complications following coronary

thrombosis. Blood-vessel grafts, drugs to abolish irregular heart rhythms, and dietary regimes for hypertensive patients have now been developed. Newer drugs to lower blood pressure are now being explored to prevent damage to blood vessels which hypertension may cause. It is now established that hardening of the arteries is related to a disorder of fat metabolism, and it would appear, in animals, that hormones from the thyroid and the female sex glands are of possible benefit. This observation may turn out to be of great value in man.

Much can be done with the knowledge we now have to help those with heart disease, but much more must be learned through painstaking research before real gains can be made. We have yet to learn the basic causes of the "Big Three" in heart disease—rheumatic fever, hardening of the arteries, and high blood pressure. We need new and better treatments, and methods of cure and prevention for many of the heart and blood vessel diseases. Money should be invested to bring the most capable and best trained men into heart research and keep them there, to support groups of research workers who have demonstrated or given promise of demonstrating their ability to accumulate new information about the heart and its afflictions. This investment includes providing such investigators with the expensive equipment, the technicians, and the laboratory buildings necessary to do their most effective work.

We need also to make sure that the knowledge we now have is fully applied for the benefit of heart sufferers everywhere. We should educate all of the general practitioners throughout the country, and also the patients, nurses, social workers, and teachers, so that the enigma and fear of heart disease can be dispelled and knowledge can become available to the ultimate consumer—the public, and to their counselors—the family physicians. Fear should be replaced by hope, hope in the present and for the future.

The needs are great and it is appropriate and fortunate that both private and public agencies and interests are engaged in meeting them—for the efforts and support of all are necessary and will not be too great for the task. The unity of the organizations working in the heart disease field is one of the most encouraging aspects of the fight against this disease. The cooperation between the National Heart Institute and the American Heart Association extends far beyond the expression of formal statements. It involves the free and full interchange of ideas. It is the true teamwork which makes for progress—a strong Government body and a vigorous voluntary agency working hand in hand toward the common goal, each supplementing and complementing the other. One of the most pleasing aspects of the work in the heart field to me is this partnership.

The total funds, public and private, previously and presently available for the heart program have not been sufficient for the job to be done. Despite the many heavy demands made on the family income, the annual fund drives of the American Heart Association have shown steady gains which reflect the concern and support of the public. The National Heart Institute program is likewise strongly endorsed throughout the Nation. It demonstrates to the people that their Government is joining in the fight, and it results in greater response to the American Heart Association's appeal.

Needless to say, the expenditures of the National Heart Institute do not overlap those of the American Heart Association in respect to duplication of programs. The needs are so tremendous that even the entire funds that both employ suffice only for a minimal national program. We hope the sums of both organizations can increase annually until they become adequate for the comprehensive program which the nation requires.

Because heart disease has affected the lives of nearly all of us in some way, the necessity for a sustained attack against its inroads is widely recognized and is universally supported. The tool of heart disease has been brought home to most of us through personal experience—the untimely loss of friends, relatives, neighbors, business associates; the crippling of children; careers cut short; families struggling under the burden of chronic illness. The actions of Congress in passing the National Heart Act in 1948 crystallized this general awareness of the heart problem and raised hopes that its challenge would be met.

The fruits of that action are now being realized in the work of the National Heart Institute. A solid foundation has been laid with an intramural program of basic clinical research that is contributing much new knowledge in the cardiovascular field. A wisely administered program of research grants is stimulating heart disease research in universities, hospitals and medical centers all over the Nation. Both of these programs are making significant advances

and may already be credited with a number of life-saving accomplishments. The training programs, the research fellowships and the clinical traineeships are helping partially to relieve the shortages of qualified scientists and clinicians. Progress is being made in heart disease control and educational programs.

The machinery of the total heart program is operating for production; it is operating smoothly and much can be expected if the wheels are kept turning. And it is essential that they be kept turning at an even faster rate. For this, adequate funds must be provided. In my opinion, the fight against heart and blood vessel disease should go forward with all the financial resources at our command. Research, if fully supported, will produce the weapons. The earlier a full-scale offensive is launched, the sooner the effects of heart disease on the nation will be reduced.

We physicians and scientists cannot do the job alone. We are dependent upon the entire citizenry to share the responsibility with us. And Congress, as the elected representative of the American people, must do its full part. Among other things, Congress should sustain the efforts of nongovernmental hospitals, medical schools and research institutes to a much greater extent than hitherto. The promise of success in overcoming this most vital health program demands this greater support. With it, we should be able to conquer this menace, perhaps sooner than we imagine.

Dr. KATZ. While I am sure this committee knows these statistics of heart disease, I believe it needs to be reemphasized. I am convinced that it is the most important package in the health field in this country. You know that one-half of all the people that died in 1950 died of heart and blood vessel disease which, as you know, is more than all the other disease plus accidents plus war. One out of every 15 citizens has this ailment. It is one of the important causes for rejection in military service, and is one of the causes that limits the full use of the manpower pool. It is a crippling disease, one of the most important even though it is sometimes not apparent to the eye.

The seriousness of the disease is increasing because doctors and scientists have attacked with real success acute illnesses so that the chronic illnesses and aging population is important. Heart and blood-vessel disease is more prone to attack the older group, although you should know that between 5 and 19, as Dr. Jones I am sure has informed you and others, it is by far the leading cause of death and disability.

Now it is a chronic disease, but it is not an incurable disease. We are dealing with salvaging of people for whom there is hope, and this hope in my opinion was not apparent even 10 years ago. What I am trying to say is that you are not just being sad about somebody for whom you can't do anything. You are trying to contribute money to do something for people who can be happy and useful citizens.

I am sure you realize that not all of the 10 million people with heart and blood-vessel diseases are crippled and in bed. Many of them are up and about and living happy and useful lives. I think that our job is to see that more can get into that category.

We should remove the enigma, the fear of heart disease. We should tell them about the hope which is real, which I will try to explain in a moment.

Now the need in my opinion for a continuing expanded program so that we can better recognize, better treat and ultimately better present heart disease, and a program also to disseminate the knowledge, we now have. As I travel around the country I am shocked sometimes at how little of the things that we know that this committee has been informed of by documentation is not known by all the doctors let alone the laymen.

We have to get the public to understand what heart disease is, because there is a group of heart diseases which is more in the mind than the body, and I am fearful that all of this need of raising money has contributed to it.

In other words, there is hope, and when I opened the 1951 American Heart Association's campaign in Boston my theme song was "Yes, there is hope," and I documented some of these hopes, and I would like to mention a few.

You have heard from Dr. Jones about prophylaxis in rheumatic fever. You will hear from Dr. Blades about the really wonderful things in surgery.

To me one of the most miraculous things—and I really think it approaches a miracle—is the way a surgeon goes into the chest, puts his finger in the heart and opens up a valve, and you watch these patients, and it has happened in my family, and see them from seemingly going down hill, recover.

We have been able, with expensive equipment, to put catheter tubes down blood vessels into the heart and measure the pressure in the various chambers and get the oxygen content.

We have been able to inject radioactive material and take X-rays so we can see what is happening in the human heart and better diagnose it both for congenitals and for the rheumatic and to determine more scientifically operability. So it is just not opinion, hearsay, desperateness.

In the heart failure when the heart peters out ultimately, we have made great advances in our control with sodium, with diet, and other things. Shock, which is a very important thing during war and during ordinary activity, is still being vehemently and vigorously pursued, and I am sure this committee has been informed of the advances during the last world war and since in this connection.

To illustrate a point—and you will forgive me for mentioning my own laboratory because I can make the point with pride—we have been studying the effect of intense cold in animals, and you may have read in the newspapers about the frozen woman that came to the hospital. It was my associate who gave advice to the surgeons and interns on this woman so that his advice, based on animals, helped her to survive better than she might have done otherwise.

To go on, syphilis used to be about 1 percent of all cardiac cases. Ten percent of the people that got syphilis developed heart disease. Now I like to say there is no excuse for chronic syphilis, except ignorance, and that has come about through the antibiotics like penicillin. You have heard from Dr. Jones about subacute bacterial endocarditis, which he might have mentioned is due to an organism that affects the valves and has killed in the past 99 percent of the youngsters that have it. I go round the country saying that you used to set up the death certificate, leaving only the date open, but now it is something we have almost wiped out.

There is hyperthyroid disease. With surgery and radioistopes and other therapy, it is being licked. It is not a very potent form of heart disease. We have got it on the run.

Anticoagulants, things that prevent the blood from clotting, to me is one of the most important contributions in clinical management of the hardening of the arteries variety of heart disease. The National

Heart Institute and the American Heart Association together have supported a committee which my successor, as President of the association, Dr. Irving Wright of New York, has been the chairman, to test this out, very much like Dr. Jones pointed out about the rheumatic fever treatment with ACTH and cortisone.

These are things in being that your money and the public's money given voluntarily, yours as custodians for the public, is being used for. At the moment new types of anticoagulants are being brought forth.

You have heard about infection. I am not so sure the committee recognized the impact on the kidney, the lungs and the heart as important facets that are being pursued.

Then there is high blood pressure. You know there is a big three in heart disease, rheumatic fever of which Dr. Jones has talked, high blood pressure, and hardening of the arteries. Now I want to amplify just one facet of what Dr. Jones mentioned here.

We come to recognize that drugs, surgery and diet, by just keeping the blood pressure down, which does not mean you go over and take your blood pressure every week, because that is nothing, but by keeping the blood pressure down, prevent the ill effects of the high blood pressure on the blood vessels.

Some work we did on chickens, some work that was done at the University of Illinois by Dr. George Wakerlin, on dogs, has shown quite clearly how hardening of the arteries makes the animal, the chicken or the dog, have high blood pressure that the changes in the blood vessels speed up in these control experiments. It would therefore seem likely that is true also in man.

Now we need more studies. We need to know more. We need to explore some of these newer drugs.

I was in Boston not so long ago when they talked about a new drug. But Dr. Robert Wilkins at the Boston University Medical School and the Massachusetts Memorial Hospital group has a new drug that looks awfully exciting. I had the privilege of listening to his findings. They may not turn up, but there it is, a new drug, a new possibility which we are always looking for.

If I sound enthusiastic, remember that my life has been devoted to research, and I am now not only for this committee but throughout the country a salesman for research. We are getting out and telling the people what they have to do.

Now, let's come to hardening of the arteries, which my group has gone into very intensively starting 10 years ago, and now is one of the most exciting fields. Some of my young associates say the answer may be around the corner. I am more sophisticated.

My own feeling is in the next 20 years, which in my normal expectancy, I can see this problem licked so we can go to something else. I then won't think my life has been a waste.

Then what have we learned? When I got into heart research some 30 years ago they said concerning hardening of the arteries, "That is just growing old, that is inevitable, why worry about it? People have to grow old." Well, we have come to change our minds and I think this in itself is important.

We have come to recognize that hardening of the arteries is a disease, and as such it can be treated. It is a disease of fat metabolism. As I like to say, the offending agent is cholesterol, one of the fats.

Now in this field we have come to recognize it is not only the cholesterol in the diet—we have done a year's study on chicks, young male chicks, removing all the cholesterol, getting the fat way down, and it did not abolish hardening of the arteries, and similar studies for shorter periods of time have been done on man in following the blood, so it is not only in the diet. It is somewhere within the body, what we call endogenous cholesterol metabolism.

I am sure you know because the National Heart Institute has supported its program in a big way, that Dr. John Gofman, a young physician who is also a splendid biophysicist in the Donner Laboratories in Berkeley, Calif., has used an ultracentrifuge, which I call a very fancy cream separator, in which he has been able to take the blood of human beings, rabbits, chickens, and dogs—for example, we sent in some of our chicken blood—and has been able to show that what we call giant molecules that contains fat, cholesterol, and protein differ in different diseases.

In other words, statistically but not in single patients it would seem that those that are prone to hardening of the arteries of the heart, coronary disease as we call it, are the ones most apt to have these particular giant particles in their blood. It is true with the chicken and it is true of the other animals.

Then, at Cornell, Dr. David Barr, using the method that Dr. Jones talked about, developed primarily by Dr. Edwin Cohen in Boston Harvard Medical School, a program which I understand the National Heart Institute is supporting in a major way, has been able to make other methods to discriminate the blood, so that we have a lot of leads in human beings, though not for immediate treatment.

This is not business, this is research. This is like gambling in oil. You may have a wildcatter come in or you may sink millions of dollars in it, and have nothing to show. That is the gamble. That is why research men are like artists. They don't think in terms of cost. They think in terms of having funds and being the ones that bring in the oil.

Now animal work is necessary because, thank goodness, in our civilization we cannot sacrifice human beings and look at their blood vessels, and so there has been a major program of treating animals, chickens and others with hardening of the arteries and seeing what happens.

Well, I could go on and point out that you can show in chickens and other animals that hardening of the arteries is reversible. In other words, you can get it to disappear and not crumble.

When I talk about the female sex hormones in our own department, I can tell you something that is awfully exciting. We can show that it goes in and out intermittently. All of these are promising leads because you get a group of people to say, "Well, let us go into this, there is a promise of our getting famous, getting a Nobel prize or something." The motives that make people work are amazing.

We have been able to show there is a quantitation between the amount of cholesterol in the diet and the lesions, the length of time for development of lesions.

Then we have recently explored in a chicken a gel of some pharmaceutical house. We are testing it out in human beings now. I don't know where it is going to go, but that is the way we work.

There has been recently a material called heparin which was used originally to prevent blood clotting. John Gofman went along and tested it in human beings and tested it in rabbits, and his results suggest that in the rabbit where you can examine the blood vessels as preliminary material—it is only a preliminary report which has not been published in full—that he can reverse hardening of the arteries. It is claimed by clinicians, but it is not verified, that it tends to relieve.

Now the endocrines. It has been known for many years that the thyroid gland in the neck, which creates one of the hormones, will alleviate, will reverse hardening of the arteries, and there are several pharmaceutical houses with chicken colonies trying to find a variety of the thyroid hormone which will not increase metabolism but have only this effect.

In the pituitary, which you have heard Dr. Jones talk about, and which is the master gland of the body, we have found that cortisone, compound F, a new one, D, C, A, all of them affect metabolism of the fat, cholesterol, and have effect on hardening of the arteries.

The adrenals too, which I have just mentioned inadvertently with the pituitary, cortisone, compound F, and D, C, A, should be correctly said to be attributable to the adrenals and not to the pituitary. ACTH is the pituitary material.

We have tested others and we have got a major program going along in a great way. We have got 400 chickens in a room smaller than this which we have had going for 10 years. We have been offered chicken farms but haven't got money and personnel to carry the thing on in that way. Maybe it is just as well, as it might get out of hand for control.

But the most interesting thing is the sex glands, and I would like to tell you about that, then I will be through with this phase of my documentation. I want to get you as excited as we are.

It is known that males have hardening of the arteries, coronary disease more frequently than females, across the board three to one. As you will see in Dr. Paul White's documentation, under the age of 40 males predominate 35 or 40 to 1 except only when they have diabetes, and by the way, diabetes today is a vascular disease, because we control the other manifestations, and people succumb to blood vessel and heart disease.

Now it has been shown also in some studies and I am sure you have heard about them based on anthropomorphic methods, that it is the big athletic type, called the mesomorph that is predominately affected by it, and so one would say, "Let's castrate people." We have castrated some young male chickens and it did not help, so I breathed a sigh of relief and said we don't have to interfere with procreation.

The thing, however, was that in some of our studies and in other people it was found that in chickens that if you put in a female sex hormone, transplant it under the skin, that they will develop hardening of the arteries, but not of the coronaries. That was first shown by Cherkoff in California, and we confirmed it.

Recently we set up a program where we gave young male chickens cholesterol in the diet and female sex hormones and we found that the female sex hormone neutralized in these young males the tendency for coronary disease. About 2 weeks ago when I came back to spend

part of my time in my primary function in the laboratory, my associates informed me of an experiment in which cholesterol was given to produce in the young male chick hardening of the arteries and then the female sex hormone was given while the cholesterol was continued and the report showed that not only did the fatty material disappear from the blood vessels, but the hardening did too in a matter of a few weeks.

Now, these are chickens. This is not man. What I say is we need to get somebody to work to find a variant of the female sex hormones which will have this action on the chicken without feminizing it, and then when that is found maybe if man is like a chicken it will work in man.

Now I would like to point out a few things. If I may, I want to read just one or two little sections of my prepared speech.

Much can be done with the knowledge we now have to help those with heart disease, but much more must be learned through painstaking research before real gains can be made. We have yet to learn the basic causes of the "big three" in heart disease—rheumatic fever, hardening of the arteries, and high blood pressure.

We need new and better treatments, and methods of cure and prevention for many of the heart and blood vessel diseases. Money should be invested to bring the most capable and best trained men into hard research and keep them there, to support groups of research workers who have demonstrated or give promise of demonstrating their ability to accumulate new information about the heart and its afflictions. This investment includes providing such investigators with the expensive equipment.

John Gofman's ultracentrifuge, if I remember correctly, is an expensive item, about $70,000. This investment includes the technicians and laboratory buildings necessary to do their most effective work.

As I have been around the country I have seen those that received the money and how much better they can work, and I am informed that there is something like $32,000,000 in requests. There is a real need for more building. Can you tell me who else in Congress at the moment can take and supply this job, not for us alone but for you people as well, because as you have been informed, one out of every two people of the Congress, Representatives and Senators, are going to have heart disease.

The total funds, public and private, previously and presently available for the heart program have not been sufficient for the job to be done. Despite the very heavy demands made on the family income, the annual fund drives of the American Heart Association have shown steady gains which reflect the concern and support of the public. I supplied you with the figures from memory as I recalled them.

The National Heart Institute program is likewise strongly endorsed throughout the Nation. It demonstrates to the people that their Government is joining in the fight, and it results in greater response to the American Heart Association's appeal. The action of Congress in passing the National Heart Acts in 1948 crystallized this general awareness of the heart problem and raised hopes that the challenge would be met.

Now I have seen the budget of the Citizens' Heart Committee and I approved it. It is obvious that I think it is conservative.

I would like to stress the extramural program. I would like to stress the research fellows.

I saw an item there for $1,500,000 for research fellows. To me that means not dollars. It means bringing 300 more young men into the field.

You see the American Heart Association is willing to pick them up after they have been trained and prevent them from going into practice or administration or what have you.

I saw a request for grants of $8,500,000 whereas last year it was $4,000,000. Well, from things I determine as I travel around, I know that this is not padded, but could be very wisely invested. I know in the American Heart Association we have a devil of a job meeting the demands that come to us, and they know we are not a rich agency.

Again I want to point out that there is a request for cash of $4,000,000, and I don't know what the technical term is, but an allowance in future years for $14,000,000. Four million dollars, to me, means eight new plants to do heart research, and if I am right this is the most important problem, and it is cheap.

I can't get excited with all the billions that are being spent, that this item is padding or will cause inflation, as an individual. I want to emphasize nothing I say is sufficient as to the way I feel about it as an individual. I want to emphasize that as I travel around the country I am very happy to see the cooperation between the strong Government agency and the vigorous private health agencies. I had something to do with its reorganization from a medical and scientific body to one that went into the health field.

The programs meshed, though funds are not sufficient, and I think congressional support has made the job easier.

Now I would like to close with my peroration which I can read better than present.

We physicians and scientists cannot do the job alone. We are dependent upon the entire citizenry to share the responsibility with us. And Congress, as the elected representative of the American people, must do its full part. Among other things, Congress should sustain the efforts of nongovernmental hospitals, medical schools, and research institutes to a much greater extent than hitherto. The promise of success in overcoming this most vital health problem demands this greater support. With it, we should be able to conquer this menace, perhaps sooner than we imagine.

I am grateful for having you listen to me.

Mr. FOGARTY. Thank you, Dr. Katz. Do you want to go on with your statement, Dr. Blades, and then, Dr. Katz, we will appreciate it if you could stay here so we can ask some questions?

STATEMENT OF DR. BRYAN BLADES

Dr. BLADES. I am Bryan Blades, now professor of surgery at the George Washington University School of Medicine.

My interest in heart disease, particularly heart surgery, stems back about 16 years, first at the Washington University at St. Louis, and during the Army as consultant to the Surgeon General, and now at George Washington University. I have been active in these matters. I am associate editor of the Journal of Thoracic Surgery and a member of the Board of Thoracic Surgery.

Mr. FOGARTY. We will file the statement in the record, and you can go right ahead.

(The prepared statement is as follows:)

Today we are in a strategic position to buy a great deal in the future health of our citizens through courageous support of the national program against our leading cause of death, cardiovascular diseases. It is hardly necessary to establish here the importance of this group of diseases. Day by day they are in the public eye as devastating attackers of men and women in all walks of life. One could cite many headlines and many statistics to emphasize this point, but it is essential only to remember that over half of all the deaths in the United States each year are caused by cardiovascular diseases.

One other most significant point must also be made and constantly recalled; this is the fact that much can be done today to attack the problem of heart disease and that research, if adequately maintained and vigorously supported, can bring us much greater health dividends in the forseeable future. To illustrate this I should like to present a brief picture of the cardiovascular diseases and progress against them as seen from the viewpoint of my special interest in surgery.

In 1883, Dr. Billroth, the pioneer in gastric surgery, made this comment: "The surgeon who would attempt to suture a wound of the heart would lose the respect of his colleagues." Invasion of the heart by the surgeon was considered for many, many centuries to be too daring a procedure to undertake. Indeed, this prevailed until not too many years ago.

Today we have progressed to a point that in retrospect seems almost unbelievable and our advances have been made possible through research. Dr. Robert Gross, of Boston, and Clarence Crafoord, of Sweden, have pioneered in the field of great vessel surgery during the past few years. Their work and the work of others have made operations for coarctation of the aorta a commonplace procedure. And Gross first demonstrated the feasibility of blood vessel grafts in the aorta. Other investigators have shown that grafts of considerable length can be utilized to replace segments of diseased vessels.

Across the country today, successful heart operations and operations on blood vessels number in the hundreds. A cursory review of some of the advances in several of the important types of heart disease and in the general field of heart and blood vessel operative procedures will serve to show why we can feel so strongly that there is, more than ever, sound reason for carrying forward research to reduce the toll of suffering and death from heart disease.

Since the first successful operation for a congenital defect in 1938, tremendous strides have been made in surgical treatment of this type of heart disease. The "blue baby" operation, which was originated in 1944, has allowed many patients to live much longer lives. Today, six or more kinds of malformations (including patent ductus arteriosus, coarctation of the aorta, aortic ring, tetralogy of Fallot, tricuspid atresia, and valvular pulmonary stenosis) can be corrected by surgery. Much of this research has been supported by the National Heart Institute since its establishment in 1948, and scientists are currently being aided in developing methods for treating several additional types of malformations.

A number of investigations are directed toward cor ecting heart damage caused by rheumatic fever. One investigator has developed a new technique for the repair of mitral insufficiency, the leaky valve condition that often occurs. This surgical method, in which a piece of the sac enclosing the heart is pulled through the heart and attached so it moves loosely against the damaged valve, has been successful in a high percentage of cases treated. Plastic heart valves have been developed which, following further refinement and testing, may be a successful means of replacing valves severely damaged in rheumatic heart disease.

Research into arteriosclerotic heart disease is making real gains, and in this field, too, surgery has progressed tremendously. For example, by short-circuiting certain arteries, the flow of blood through malfunctioning coronary vessels can be reversed and increased, thereby increasing the well-being of the heart itself.

The cause of high blood pressure is still unknown, yet advances have been made which offer relief to many hypertensive patients.

A surgical operation, called sympathectomy, has been devised whereby the cutting of certain nerves produces a striking reduction in blood pressure in some cases. In others, however, the operation has little or no effect. Studies supported by Heart Institute grants are helping to evaluate the different types of

95263—52——21

sympathectomy, the degree of removal of nerves necessary and methods for determining in advance those individuals who would benefit from the operation.

Thus, surgical techniques are proving beneficial and sometimes remedial in several types of heart disease, congenital rheumatic, hypertensive and coronary. With advances now being made, prospects are bright for surgical treatment of conditions for which heretofore there has been no successful method of therapy.

A number of such heart conditions, including malformations, wounds, and other types of heart damage, might be remedied by surgical means if the work of the heart could be relieved for the length of time necessary to perform an operation. Scientists have been working to perfect an artificial heart or a combination heart-lung machine which would temporarily replace the heart and lungs. Most of the knotty technical problems have been solved and the successful use of such an apparatus on human patients can be expected in the near future. This will provide a bloodless heart for operations, thus permitting operations not possible at the present time. Aside from surgery, the device would be important in certain heart cases for temporarily relieving a failing heart and lung of part of their burden. This would allow the heart to rest and improve the chance of recovery where the organ is exhausted.

Surgical advances have been made in the repair of damaged blood vessels by the use of arterial grafts. Research has developed methods of reconstructing or making new arteries by grafting pieces of blood vessels. Artery banks have been established. Artery grafts have been successfully used in correcting the condition of coarctation of the aorta where there is a structural defect—the body's main bloodline is narrowed so that blood flow is restricted. Artery grafts are also being used for arm and leg injuries resulting from industrial and automobile accidents, where the condition frequently has resulted in thrombosis or arteriovenous aneurysms or has necessitated amputation.

If the pace of heart research in the United States—and its application—can be accelerated, the coming decade may see almost undreamed-of advances. But the hopes for these accomplishments are based largely upon the fulfilling of the major needs of the national heart program. A very great share of the emphasis, interest in, and achievements against heart disease have come about as a result of the support for research and training provided by the National Heart Institute program.

Teachers in medical schools can emphasize particularly the important need for support of training. The rapid and marked advances of heart research have a disconcerting impact upon medical education. Not only is the subject matter of medical school courses influenced as new knowledge is obtained, but because of advances in clinical methodology and instrumentation, the mechanical and physical means of medical instruction are also affected. To maintain up-to-date instruction on the heart diseases it is necessary that medical schools put extra time, effort and money into a constant improvement of their cardiovascular teaching programs.

In fiscal year 1950, a limited grant program with an initial appropriation of $750,000 was begun to assist the medical schools in strengthening and improving their heart teaching. This program has been sustained at this low level in succeeding years. Owing (a) to the inadequacy of funds and (b) to the fact that only a part of the medical schools were able to file their applications early enough to be included for support at the beginning, this program has been severely handicapped. The 4-year medical schools receiving these grants are allotted only $14,000 per year, the 2-year schools only $8,000. Far from all the medical schools in the United States are participating.

The need in the remainder is equally great. They, as well as the schools currently receiving heart teaching grants, have manifested both interest and willingness to undertake expanded and improved heart teaching. That they are themselves financially unable to undertake and continue such a program is a well-known and established fact. More adequate support, at a level of $25,000, should be provided not only for the part of the medical schools currently participating, but also for all of the schools. In equity, as well as in need, grants should be available for all of the medical schools.

The particular direction which the effort to strengthen and improve heart teaching must take varies from school to school and is determined by the medical school itself. In some places the major need is for differently trained personnel, in others for improved teaching equipment, and in still others for an expanded curriculum or greater coordination.

Greater support for heart teaching is urged, because investment in this program is an investment in better heart care for our citizens. For the medical

students of today are the doctors of tomorrow. It is important that they be given strong courses of instruction in diseases of the heart and blood vessels and that the latest advances in methods and techniques be thoroughly covered. The percentage of heart disease cases in the average medical practice is high—over 10,000,000 persons in the United States have disorders of the heart and circulation. The citizens budget of $2,140,000 is strongly recommended, therefore, for the heart teaching grants program.

For the National Heart Institute program as a whole, for heart research and training and aid to the States in their development of community programs, the citizens budget of $23,318,000 total obligational cash and $14,000,000 contract authority for research facilities, represents a real need and a means of securing not only health benefits but economic savings. It is recommended for your earnest consideration and favorable action.

In these grave days of international crises we owe it not only to posterity but to ourselves and our way of life today, to make an adequate purchase of progress against our greatest killer, through the strongest possible support of the national heart program.

Dr. BLADES. Perhaps I can give you some highlights of cardiac surgery today. In 1883, Dr. Billroth, who had been a pioneer in surgery, made this comment:

> The surgeon who would attempt to suture a wound of the heart would lose the respect of his colleagues.

It is very interesting. Billroth has been quoted on many things, and that, of course, is history repeating itself. I mention this quote from a surgeon, German surgeon, because I would like to establish a very interesting and I think significant fact. I believe this committee probably knows it, but it should be emphasized.

Now, going down the list of men who have made great vessel and cardiac surgery possible, you will find with only a few exceptions, this has all been accomplished by American surgeons. And there are several reasons for that, I am sure. One is that the Americans are curious people.

We here in this country have perhaps a little greater regard for human life, and then last, and of very much importance, is the matter of financial aid to carry these endeavors on. Actually, with a few exceptions, the first trials of cardiac surgery were done in this country.

L. H. Cutler, who is now dead, former professor of surgery at Harvard, tried in 1923 or thereabous to operate on the mitral valve, and was unsuccessful, but it started this thought, and over this period of many years a good many unsung heroes have contributed one facet after another to make this a rather commonplace operation today.

I should like to mention the name of Robert Gross of Boston who has pioneered in the operation for coarctation of the aorta, but in case some of you don't know the term "coarctation," it simply means that there is a narrowing in the aorta, the main artery of the body, and this disease is uniformly fatal, not immediately, but over a period of years or almost uniformly fatal.

A Swedish surgeon, Crafoord, shortly after Gross, performed the operation of cutting out this restricted zone of the vessel and sewing it back together, which was thought to have been impossible for years. Now that is a very dramatic thing, but it is hard for anyone who has not been through this sort of thing to realize the spade work in the way of doing fundamental research in animals before such a thing can be undertaken.

Now today successful heart operations are being done by, I should say, thousands across the country. Many surgeons are interested in the subject, have worked for years on it.

A development will happen here and will be pursued and carried on, and if I had said this 10 years ago, I would probably have been questioned severely, but it is only a matter of a few years until a good many heart operations will be no more dangerous than major abdominal operations.

There is one great need, and I suspect that in a very short while we will have this, and that is a machine or a means of detaching the heart from the general circulation for a reasonable length of time to work in the heart.

Dr. John Gibbon, of Philadelphia, has been working for years on such a machine. I visited the laboratory a few weeks ago and he has now been able to detach the heart of a dog for 19 hours and have the animal survive after the heart is again hooked up to the general circulation, which of course is a very exciting development.

You all know from newspaper and magazine publicity about the blue-baby operation which was devised by Alfred Blalock and Helen Taussig. Your first reaction might be maybe there aren't too many blue babies, and maybe it isn't too important.

In my opinion, going back to the spade work and the awfully hard work of research, working out that operation and applying it successfully opened up many new vistas in the whole field of cardiac surgery. I don't have to tell you that much of the good and significant research that has been done has been largely supported by the National Heart Institute since 1948.

Now you have heard two of the world's foremost authorities speak today on the various aspects of heart disease. There is no point in my repeating the things they have said. You have heard a good deal of rheumatic fever in which great advances have been made, and it is still important, and the operation for mitral stenosis, which is a common late development, a rheumatic disease. Mitral stenosis means the valve between the left auricle and the left ventricle of the heart becomes stiff and forms a dam which prevents the blood from getting into the left ventricle into the circulation. The blood backs up in the lung and these people have high blood pressure of the pulmonary vessel, and unless this is relieved, in certain cases they will die.

Starting back with Dr. Cutler's work in 1923, and followed by a host of unsung heroes in research, this operation is now very commonplace.

For example, here in Washington in our university hospital or in the affiliated hospitals there will be one or two or three people with mitral stenosis operated upon each week. Five years ago that would have been unheard of. But there is a great deal to be done on this dramatic surgical side. Surgery, this thing of putting one's finger in a heart, is very dramatic, and sometimes is a little hard on the surgeon's circulation, but the important factors are the ramifications and refinements in the selection of patients and all these physiological studies which require a great deal of skilled personnel and equipment.

Now we are all interested as we get a little older, even if it is not a disease of old age, in hardening of the arteries. We are all particularly interested in hardening of the coronary arteries, because we have got friends or relatives who have been perfectly well one day and dead the next.

Now as you probably all know again, a tremendous amount of work has been done on surgical methods to treat coronary disease. I am sorry to say that at least in my opinion none of these is thoroughly satisfactory nor are any of these now acceptable for wide application, but that is another field of great challenge, tremendous challenge. And each day something comes up to open this field wider.

Only in the last month—you may not now know about this, Dr. Katz—the use of plastic tube, a tube to shunt around a given zone, say, for example, in the aorta, we can't put in a blood graft which I will speak about later, because we would have a man with a paralysis of his hind quarter if we cut off the blood supply that long.

A young man, Dr. Schaffer, has tried this, and we only yesterday tried this in a dog, putting in a tube above, swinging it around, and carrying the blood down below, we cross-clamped the aorta for 2 hours, and the dog was running around this morning. I visited him before I came over here.

Well, that is just one example of dozens or hundreds of things which may come along. Now the operation sympathectomy of cutting nerves to reduce high blood pressure has been widely employed, but there again it is not perfect. There is still a lot of fundamental work which must be accomplished before it can have wide application.

I mentioned the machine to replace the heart, and now I want to say a word about blood-vessel grafts, in which I have a great deal of personal interest, and your granting agency has made most of our work in this field possible.

The first grafts were used by Dr. Gross, and I would like to tell you a personal story if I may, because it brings out the frustrations that lack of funds can bring.

About 1947, just after the war, Dr. McQuen and I requested a grant to study the feasibility of blood-vessel grafts and moreover a blood-vessel bank. It seemed a little ambitious, maybe, at the time.

Well, the grant was approved, but the Public Health Service was out of funds, and we waited almost 18 months for our funds to pursue this work. In the meantime, a good bit of the work had been done in short grafts, so we transferred our efforts to a study of long arterio grafts. Now there are many situations, both from disease and from trauma in which the use of a long arterial graft may save a life or an extremity, and we have shown I think to practically everybody's satisfaction that long grafts can be used which have to be taken from a freshly dead body, and then a patient who is relative free of disease.

We now have a woman patient, a woman who has a 10-centimeter aortic graft which replaced a stenosed part of her own aorta. Ten centimeters is four times this, so it is about so, and that has been in for almost a year and functioning perfectly well.

Of course, there are many other possibilities with the work on blood vessels. We have been able to show how these are nourished, that is how they establish blood supplies for themselves, and not only in very dramatic cardiac surgery, but for example in wounds in war or any trauma, and now there are very frequent cases all the while of people who formerly would lose a leg or an arm, what-not, being saved, their extremities being saved by the placement of grafts.

Very recently the people, the grantees that are studying this subject, met together in January and exchanged ideas about preserving grafts,

how to keep them, and many of these details, which again take money and time.

Now I would like to say this, too. I apologize for being a little jumpy here, but we mentioned machines a moment ago, about taking over the heart. There are so many other ramifications of this work which require so much time.

Recently in our own laboratory we had spend about 8 or 9 months—I say we, the younger men who work with me—building ourselves a defibrillating machine to shock the heart out of ventricular fibrillation. There are such machines available, but we were not satisfied with any of these.

We wanted a portable one and a simple one. We were lucky because we are affiliated with the university, a point I want to make later about the project, and our school of engineering helped us. The young men built this themselves. One of the youngsters there, a fellow, got one fine shock out of it while he was working on it, knocked him down once, but that is all right, it wasn't enough to hurt him. But that took months of effort and time to build, and there is no other way to do it.

One can't call a manufacturer and say, "We want a defibrillating machine that will work on the human heart," and we are now measuring the resistance in freshly dead human hearts and other animal hearts.

So much for that. Now to the point that brings us here and our interest that brings us here—about money to carry on this work. If we can keep an adequate—and I won't pretend to say I know what is adequate—amount of money to carry on this work, the progress will be simply amazing to all of us, I am sure.

The others on the panel have spoken in terms of the money and the budget and so forth, and I simply want to bring out something that is peculiar, maybe not peculiar, but is of particular importance in surgery of the heart. The funds available to the medical schools, of which there is no point in my reading here, the suggested $25,000 for each school, and not too stiff curtailment on the building of laboratories.

I say that for this reason, that every small move like defibrillating the heart or any of these moves that are made in the human cardiac surgery must be carefully tested in animals.

Then there must be available suitable patients and there just aren't any other types of hospitals or any other types of physical set-ups in our country or any other place, for that matter, in which this correlated program can be carried out, so, for my own personal part—and I won't go into money any more—I think it would be a real calamity to not honor as much as possible those particular requests. Thank you very much.

Mr. FOGARTY. Thank you, Doctor. This operation for high-blood pressure you say is not completely successful?

Dr. BLADES. You are referring to the sympathectomy? Completely successful in some cases, or at least very successful in some cases.

A peculiar thing, in some people a great deal of alleviation of symptoms but very little falling of blood pressure. Others have a distinct falling of blood pressure, other failures, other recurrences.

Mr. FOGARTY. The reason I ask is that there are two or three cases I know of that died after the operation.

Dr. BLADES. Dr. Smith, of Boston, has pioneered that operation. I put it this way: It is like a good many operations on the nervous system. A certain price is paid when the nerve is cut in obstruction of nerves, so it comes to a balance of whether the price that is paid is worth what is being accomplished in the way of alleviation of symptoms.

I think it is safe to say, and I think Dr. Smith would agree with me, that none of us are totally satisfied with the operation sympathectomy, but in a desperate case, particularly with a young man, with terrific hypertension, it is indicated in some cases.

Mr. FOGARTY. In the young?

Dr. BLADES. Particularly in a young fellow who is say 30 or so and has very high-blood pressure and his future looks bad. That is a personal thing. There are a lot of sharp differences of opinion about the value of sympathectomy.

Mr. FOGARTY. Do you think that diseases of the heart are hereditary? Suppose your mother and father both died of coronary thrombosis or some similar disease?

Dr. BLADES. Dr. Katz is an expert on that. I will give an opinion. He will probably contradict me.

I don't believe it is hereditary in the sense of the definition of the word "hereditary," that is, that if your mother and father died of coronary thrombosis that you are going to die of it.

There is a tendency in families to have arteriosclerosis, hypertension, and so forth, just as there is a broad tendency in families to have carcinoma. I will put it this way: that my father did happen to die of coronary disease, but I don't waste time worrying about it myself.

Mr. FOGARTY. What do you say, Dr. Katz?

Dr. KATZ. I would agree with Dr. Blades. I think the background upon which it occurs is inherited. In other words, some people are more vulnerable than others, but the proposition is if they take care of themselves, if we can get the answer in some of these regulatory symptoms, we might be about to prevent it.

In other words, if you deal with insurance people, then you grade up people whose families have died of coronary thrombosis, but if you are dealing with individual people, you might be able to deal with a factor in the body, so while they are susceptible, they can live much longer than before.

Yes, the tendency is hereditary. If a family is long-lived, statistically, they will live longer. It seems to me we can deal with the diet, with hormones, and other things, and thereby increase the longevity of the people. Just like you see people come from abroad who are short, within a generation they increase in height. You can say body height is hereditary, but there is also environment involved.

Mr. SCHWABE. May I just at that point ask this: Like tuberculosis, there may be a propensity there, but not necessarily hereditary so far as the disease itself is concerned; is that correct?

Dr. KATZ. That is correct. The trigger mechanism may be removed.

Mr. FOGARTY. Both Dr. Katz and Dr. Blades, this is your first appearance before this committee. As you know, it was not until 1948 that the National Heart Act was passed by the Congress. The appropriation in fiscal 1949 was just a relatively small sum. It was not until fiscal year 1950 that you actually got an appropriation.

In that year we also had money appropriated for construction of laboratories and research facilities as we have had in mental health institutes and cancer institutes, but then in 1952 the Bureau of the Budget cut out requests for practically all new construction facilities in all of these agencies, but in the space of 3 years we are now appropriating for the National Heart Institute about $10,000,000 per year without any money for construction of these facilities. You can see that in 3 years we have gone along at a gradual pace. At the same time we also have all these other institutes that we appropriate funds for, like cancer, mental health, arthritis, neurological diseases, so we as a committee have been very sympathetic to the needs of the various institutes here at the Federal level, and also have been sympathetic to the desires of men like you who appear here every year for these appropriations.

The committee has kept it up on a nonpolitical plane all the way through. There has been no politics on this committee at all, and we have been very sympathetic, but we are faced with the feeling of many people regarding economy, so that it is almost impossible now to increase any appropriations over the figures in the budget.

We have been very fortunate, in the last year or two especially, in keeping the appropriations for these various institutes at practically the figures that was allowed by the Bureau of the Budget, because practically every other agency that appears before us has been cut, and that is the general feeling in Congress.

That is a problem that we are up against. You are facing a sympathetic committee, but the amount of money available for all of these things is limited. I just thought I would give you that background of how the committee feels and the work they have done in this field in the past several years.

Judge McGrath.

Mr. McGrath. No questions.

Mr. Fogarty. Mr. Denton.

Mr. Denton. I asked this question last year, something like the question Mr. Busbey asked.

Has any progress been made in enabling doctors to detect when people have heart trouble?

Now the reason I ask that question is that I know of two or three cases where men have gone to doctors and they were considered in the community to be good heart doctors, and they were told they were all right. Very shortly after that they died of heart trouble.

Mr. Busbey. Mr. Denton, may I interject there. I think last year I illustrated the case of a friend of mine who had gone to a life-insurance company for an examination, passed the examination on the seventh floor of the building, and as he walked out of the door of the building he dropped dead of a heart attack.

(Discussion off the record.)

Mr. Denton. I just want to know if anything has been done to enable doctors to ascertain this heart disability, are there improved methods in ascertaining if people have heart trouble.

Mr. Fogarty. You mean improved methods of diagnosis?

Mr. Denton. That is right, improved methods of diagnosis of heart trouble.

Mr. Schwabe. Especially in the early stages.

Dr. KATZ. I will be delighted to take it up. I, among other things, am supposed to know something about electrocardiology. My textbook is one of the classical textbooks, and in the course of 30 years that I have worked in this field the electrocardiogram has multiplied the number of leads it has taken, so that with exploring more and more spots in the body you might not miss any areas that might bring out some injury to the heart.

There has developed two tests. One is called an exercise test and the other is called a hypoxia test. The one you go up to high altitude, really, and the other you exert yourself, the standard test worked out in the Navy by Dr. Master, and that will bring out certain cases.

If you had in this House Building a main pipe coming along and you had some rust on it and that rust wasn't in a major part, you could do all the tests you wanted to in the world and you wouldn't know whether it was going to loosen up and plug up further along. You would have to operate further, and so when the doctor gives a clean bill of health and the patient dies thereafter, it simply means maybe the excitement, maybe the fact he has been told, "Now forget about it," the emotional stress or some other thing has moved it and it has been plugged.

Now, after all, doctors are just human beings. They operate within their knowledge, and what I would like to see, is the developing of some technique where you shoot stuff into the body that will localize in the regions that have hardening which are sinful in this sense, and take some sort of picture.

I don't know, but if I had the idea, I would stop all my other work and go full blast at it. Some bright young man is going to come along with the answer someday.

Then you can screen the people and say, "Look, you have this disease, you have a greater statistical chance than the rest. You cross the street and you may be killed by an automobile. If your friend is killed you don't blame the doctor."

In other words, there are certain things that you can't do anything about.

That is my own philosophy, which doesn't mean we are not going to try to prevent it.

Dr. BLADES. Mr. Chairman, along those lines, fundamentally it may come down to what we have been talking about all morning, a program of education so we will have more well-educated cardiologists or doctors and develop these new ideas in diagnosis.

Mr. DENTON. That is all I have.

Mr. FOGARTY. Mr. Schwabe.

Mr. SCHWABE. I would like to ask Dr. Katz if there is thorough cooperation between the National Heart Institute of the Public Health Service, and his association, the American Heart Association.

Dr. KATZ. I can say that there is, because I have sat in for the last 2 years on our policy committee, on our finance committee, and on our executive committee, all of them as president. It is really a 3-year term.

And while we don't always see eye to eye——

Mr. SCHWABE. You shouldn't.

Dr. KATZ. We find complete cooperation. I would like to point this out. Dr. Paul White is a past president of the American Heart Institute. Dr. Jones is a vice president. Dr. H. M. Marvin is a past presi-

dent, and I am apt to slip up on the names of others, but there are our presidents, and we have a lot of other members like Dr. Irvin Page and Dr. Hugh Morgan, on our board.

They sit in and we have cooperated on the anticoagulant program, on the rheumatic fever control program, I mean ACTH and cortisone, in our education and public health things, the staffs cooperate and policies clear through it.

(Discussion off the record.)

Dr. KATZ. My personal opinion from my knowledge and from investigations is that I haven't seen anything in the National Heart Institute of the United States Public Health Service that smacks at socialized medicine.

Mr. SCHWABE. Is there anything in your association that smacks of it?

Dr. KATZ. You saw Dr. Jones, who is a prototype of the rugged individualist. It would be awfully hard to get a private bureaucracy there.

Mr. SCHWABE. I hope it never occurs.

Dr. KATZ. I might, Mr. Chairman—if I am indulging your time too much, stop me—point out one thing for the committee. By dealing with office, with the reorganization, the first president of the American Heart Institute was Dr. Arlie Baines, chief of staff of the Mayos. I don't know if he testified before this committee, but he is a very quiet man.

Then there is as successor to him, Dr. T. Harrison, who is now professor of medicine in the University of Alabama, who is the bubbly type like I am.

Then there was after that Dr. H. M. Marvin. Dr. Marvin, who is on the Council of the National Heart Institute, and I would not be at all surprised if he has testified, a very kindly man who was born in Florida and who is a typical Yankee now from Yale University, and my immediate predecessor is Dr. Howard Sprague, a delightful Bostonian with whom I have traveled around the country many times. Our styles are totally different.

As I pointed out before, my successor is Dr. Irving Wright, of New York. During the year of service as president without any compensation, just vanity satisfaction and a sense of financial peace, these people devote a great deal of time. I know Dr. Sprague couldn't see a lot of consultation because of it. I know that Dr. Wright is organizing his office, so that his associates can take care of his rather large practice in New York so he can travel around the country, and with our different temperaments we have no difficulty in office, so that in answer to your question, I think we have the kind of enterprise that I personally as a rugged individualist enjoy.

Mr. SCHWABE. I am glad to hear it.

Doctor, in reference to the so-called three great causes of heart trouble or certain kinds of heart trouble that you referred to a while ago, am I correct that many of you fall back upon the theory that it is caused by rheumatic fever, whereas a great many formerly attributed the cause that is now ascribed to rheumatic fever to perhaps a congenital condition such as congenital leakage of the valves of the heart or a murmur or something of that sort?

It seems that most of you are getting to the rheumatic fever theory as a foundation now, or cause, rather than the congenital cause; is that not true?

Dr. KATZ. It is a pity that Dr. Jones isn't here, because he is recognized as the world's authority, and Dr. Jones' criteria for the clinical diagnosis of rheumatic heart disease, which he developed when he was in Boston, is still standard in this country and abroad.

I think the majority of serious students in this field will agree that there is, just like in the adult form, a family tendency of susceptibility, that somehow or other rheumatic fever is the response of the body to some outside agent, either infection—most people think it is a streptococcus, some believe it is a virus. We really don't know what it is. If we knew what it was, we might find specific therapy.

Mr. SCHWABE. And the average physician is not able to detect what you refer to as rheumatic fever, especially in young children or overlook it for one reason or another and the damage is done, the egg is laid many years before it is hatched, isn't that true?

Dr. KATZ. That is quite true. In certain parts of the country, particularly in the South and some other parts of the country, the Southwest, the clinical manifestations are mild. It may be just a cold, and so the doctor has to be trained to pay more attention to joint pains, growing pains, vague things, and to listen to the heart, because it is in those cases that the changing murmur offers a clue.

As I have traveled around the country, not only this year, but before, clinicians everywhere are becoming more conscious of rheumatic fever. It would be my guess that they are spotting them earlier and more often than before.

Mr. SCHWABE. And when they are spotted early, what is the chance of alleviating serious trouble later or avoiding it?

Dr. KATZ. Dr. White and Dr. Jones have published a 20-year follow-up that I am pretty sure might have been documented in this committee, and I can't recall the figures, but as I remember them, about half the cases survived.

Now in rheumatic fever, as we know, it is not the single attack, but it is recurrences, and when Dr. Jones talked about sulfa drugs and antibiotics like penicillin, he was projecting the idea that with such prophylactics, the evil effect of recurrences might be prevented.

Mr. SCHWABE. Are those remedies on medications suggested in a well developed case resulting from rheumatic fever late in life?

Dr. KATZ. Rheumatic heart disease should be distinguished from rheumatic fever. Rheumatic fever is the infection. That should be treated one way. Rheumatic heart disease is the scar, the after effects that Dr. Blades has mentioned, the result of it.

In other words, it is like the shortening of a leg after an accident. The accident is the fever and the shortening is the end result.

Mr. SCHWABE. The same treatment is not necessarily suggested and would not necessarily be efficacious?

Dr. KATZ. No, sir.

Mr. SCHWABE. I want to ask Dr. Blades a question, if I may, please, with reference to these blood vessel banks, as I call them—I don't know just how you referred to them, but you know what I mean. Has any method been devised or any scheme worked out successfully for the preservation of blood vessels for any considerable length of time such as we have in blood.

Dr. BLADES. Yes, sir. As a matter of fact, I think it is safe to keep blood vessels for grafting purposes longer than it is safe to keep blood for transfusion purposes now with current technique.

In our own laboratory we have banked blood vessels—this is an arbitrary figure—3 weeks, and then we discard them. We don't like to do it. They are hard to come by. Then there are some new techniques which are all contingent on more work, of frozen blood vessels.

Mr. SCHWABE. Your blood banks preserve blood, do they not, for longer than 3 weeks?

Dr. BLADES. Under emergency circumstances, but under normal circumstances in this country, in this community, for example, the blood bank turn-over is too fast——

Mr. SCHWABE. Don't we have it sent to the boys in Korea and the hospitals in Japan, for instance, for the boys in the service who are in those hospitals? Isn't the blood more than 3 weeks old as a rule?

Dr. BLADES. I don't imagine, as a rule. I doubt as a rule.

Mr. SCHWABE. I had the impression it was, and I wanted to know if that was correct.

Dr. BLADES. I can't be certain about that.

Mr. SCHWABE. Then with reference to your blood vessel banks, you think with the techniques that are being now developed or currently being considered, in all probability you will be able to preserve them intact for grafting use for a longer period than blood can be preserved?

Dr. BLADES. Yes. Of course, you can readily understand that when the initial work is being done on anything of this sort, one has to lean over backward on the safe side.

Mr. SCHWABE. Why certainly.

Dr. BLADES. My hunch is—and this is only a personal feeling—that with frozen grafts it may be possible to keep them for increased lengths of time and use them with perfect safety, but that is work in the future.

Mr. SCHWABE. That is yet to be determined.

Dr. BLADES. Yes, sir.

Mr. SCHWABE. I was very much interested in your discussion of heart surgery. You don't call it heart surgery, but has what we refer to sometimes as the artificial heart been employed with a great deal of help in heart surgery?

Dr. BLADES. No, sir; not in humans. A pump was tried on one or two occasions. One occasion I know of in a university, not here, one of the middle-western universities, and the patient was lost because it was not appreciated, the tremendous blood flow through the coronary arteries.

Now, as I mentioned earlier, Dr. John Gibbon, of Philadelphia, has employed his pump which he has worked on for 8 or 10 years, detached the heart of a dog for 19 hours and then hooked it up, and it is still working. He doesn't plan to try his pump first on a surgical case. He feels it is unfair.

He is going to try it first on a patient who is moribund from heart disease and heart failure and see if he can bring that patient back and then hook him up, and that is a very severe test, but I have no doubt in my mind at all—I don't know whether it will be 6 months or a year or 2 years—a relatively short time that the cardiac pump will be well under way.

Mr. SCHWABE. And whenever the research along that line shall have attained success, it will be one of the greatest advances in heart surgery, will it not?

Dr. BLADES. Yes, indeed.

Mr. SCHWABE. And enable you to do things that you would not think of undertaking now?

Dr. BLADES. Oh, yes, indeed. The difficulty with valve surgery today is that it is blind surgery in that one can't see the valve. Once the pump is perfected it will be simple surgery.

Mr. SCHWABE. And valve surgery, of course, then is almost nonexistent today, especially where there is calcification?

Dr. BLADES. No, sir: that is not correct. The operation mitral-stenosis, that is a stiffening of the mitral valve with the finger fracture technique, has been amazingly successful. The results have been extremely gratifying.

Mr. SCHWABE. I think that is all.

Mr. FOGARTY. Mr. Busbey.

Mr. BUSBEY. I want to take this opportunity to thank Dr. Jones, Dr. Katz, and Dr. Blades, and I know I speak in behalf of the entire membership of this committee for having taken your time in your busy lives in appearing before this committee and giving us the benefit of your expert knowledge.

I am always happy and proud to have any witness from Chicago before the committee, and I am exceptionally proud in the case of Dr. Katz this morning. That is all, Mr. Chairman.

Mr. FOGARTY. What do you know about this electrokymograph that has been developed?

Dr. BLADES. It is a wonderful gadget. I don't know which one you refer to actually. The one I have had experience with I have operated as a consultant at Walter Reed. Of course no civilian hospital can afford one.

Mr. FOGARTY. There are a few in operation today, I understand.

Dr. KATZ. The electrokymograph is still promising. Again in my recent travel around the country it gives me a quick survey. I haven't been in every place. I haven't been in your State yet, but I have been in the State of every committeeman here.

There are two or three teams besides the one at Bethesda National Heart Institute, that are working on it. The philosophy is this.

Electrocardiography tells you about the electric currents of the heart which you can't feel, you can't see, you can't smell, you can't touch. Clinicians ordinarily palpate, tap we call it. The idea is if you can watch the motions of the border of the heart with the eye, like you open the door—I have forgotten the technical name—you can see the changed indensity of the heart beats and see the changes in the border.

My own personal reaction is it has not come up to expectations.

At several places they say they are getting ideas of how the heart beats in certain deformities, and maybe it may come back.

I know that you have had a panel from the National Heart Institute with a publication, and I myself and my team have reported on two or three things with it. For example, we have done this to show the potentialities that might be used. We put a tube, like everybody has, in the pulmonary artery, the main artery in the right side, then had the electrokymograph over it, compared the pulse and the shadow

with a pressure pulse. Recently we put a tube into the aorta, the left side, and passed it down, and have taken the pulse pressure and the other. You may be interested in this. You may not have seen it, Dr. Blades.

In the coarctation of the aorta which Dr. Blades mentioned—by the way he is more modest than I as he did not point out that his 20 centimetergraph is probably to our knowledge, and I did not know about it until I heard it, the record. That is about 8 inches, in making a quick calculation.

We can get with the electrokymograph the pulse above and below the coarctation and maybe the one within the thorax you will be able to localize for the surgeon. That is just a promissory note. I know that our technique has permitted us in one case to do that sort of thing.

In other words, it is still a tool we are playing with. It has not got the clinical utility of the electrocardiograph. It may never have. Tinsley Harrison, whom I mentioned, is hot and bothered about it. Dr. William Dock at what used to be called the Long Island Medical School, is excited about it, and several other places that I have been they are still studying hoping to find an answer.

Mr. FOGARTY. Do you have any further statement to make, Doctor?

Dr. KATZ. No other than to point out that we rugged midwesterners always pride ourselves that we come from the Midwest.

Mr. FOGARTY. Do you have any further statement, Dr. Blades.

Mr. BLADES. No.

Mr. FOGARTY. Thank you very much for appearing today and giving us your advice.

NATIONAL INSTITUTE FOR ARTHRITIS AND METABOLIC DISEASES

WITNESSES

GEORGE C. KENNEY, PRESIDENT, THE ARTHRITIS AND RHEUMATISM FOUNDATION

DR. JOSEPH J. BUNIM, DIRECTOR, ARTHRITIS CLINIC, BELLEVUE HOSPITAL, NEW YORK, N. Y.

DR. CHARLES SLOCUMB, THE MAYO CLINIC

DR. DARRYL CRAIN, DIRECTOR, AMERICAN RHEUMATISM ASSOCIATION; DIRECTOR, ARTHRITIS CLINIC, GEORGETOWN UNIVERSITY

Mr. FOGARTY. The committee will come to order. The committee has before it at this time Gen. George C. Kenney, of the Air Force, who appears this afternoon as president of the Arthritis and Rheumatism Foundation. Do you have a statement for the committee, General?

Mr. KENNEY. Yes, I have.

Mr. FOGARTY. We will be very happy to hear you at this time.

STATEMENT OF GEN. GEORGE C. KENNEY

Mr. KENNEY. I am Gen. George C. Kenney, United States Air Force, retired as of August 31, 1951. At the present time I am president of the Arthritis and Rheumatism Foundation.

I accepted the presidency of the Arthritis and Rheumatism Foundation last October and I am here today because I want to do what I can to stop a serious waste of our national strength. This disease, arthritis, and particularly the rheumatoid form of arthritis, is a slow leak that is continuously draining off manpower from our industries, and wages and purchasing power from our communities.

Around a hundred million work days are lost yearly through arthritis, equal to an army of nearly 350,000 men out of work at all times, or approximately the entire metropolitan population of Bethlehem, Pa., or Atlanta, Ga., or Denver, Colo., or 23 infantry divisions. Approximately a billion and a half dollars are lost yearly in wages. About $100 million a year is spent by these sufferers for medical care, a great deal of which is ineffective and useless. Approximately $128 million a year is spent in relief allowances to workers rendered dependent, unemployable, and destitute by the crippling effects of their illness. And this takes no account of the other working members of the family who are borne down by the burden of caring for the crippled victim.

According to the latest national health survey, nearly 7½ million men, women, and children suffer from some form of arthritis or kindred rheumatism diseases—more sufferers than all the victims of tuberculosis, cancer, heart disease, diabetes, and polio combined.

This disease is not standing still. The United States Public Health Service estimates that the incidents of new cases of arthritis and rheumatic disease is around 400,000 a year. While we do not know the causes of arthritis, we know that it flourishes and is aggravated by conditions like those today—mental and physical strain and anxiety and shock. It is handicapping our national-defense effort. The doctor in one plant in Connecticut employing over 12,000 people told me recently that 14 percent of these highly skilled workmen had arthritis. When one of those men has to quit work, there are no replacements so green men have to be trained for the job. Statistics from World War II, recently released by the selective service, show that out of 505,000 young registrants rejected for service in the Armed Forces, more than 30,000, or 6 percent, were rejected because of arthritis. We may be sure that the same high percentage applies to the current draft. We do not know yet the toll of arthritis in Korea, but I do not doubt it will be high—the predisposing conditions are all there.

The Arthritis and Rheumatism Foundation sees its problem of attacking arthritis and the rheumatic diseases as twofold. First. There is the fundamental problem of discovering the causes of the disease, which has been a mystery to medical science for thousands of years. Evidences of rheumatoid arthritis have been found in Egyptian mummies. If the causes of arthritis can at last be discovered, then we can find a cure. At present there is no specific remedy. Theories as to causation by focal infection, faulty diet and climate, have all failed to stand up under test.

Second. There is the immediate practical problem of providing better care for the millions now suffering from the disease. Dr. Slocumb, Dr. Bunim, and Dr. Crain are here to discuss the medical aspects of the disease. I will simply say that a small percentage of cases can hope to make a complete recovery in a fairly short time, but in at least 70 percent of the cases the man or woman stricken by rheumatoid arthritis can look forward to being restored to a fair

degree of health and can be saved from the greater part of the crippling effects of the disease, provided that he or she can get the right diagnosis in the first place and then that diagnosis is followed by good corrective and supportive treatment.

And yet in the whole country there are less than 1,000 physicians specially trained in the diagnosis and treatment of arthritis. Most arthritis victims are not getting correct diagnosis in time to prevent joint destruction and permanent crippling because most general practitioners do not know enough about the disease to recognize it early. Even when correct on diagnosis, most doctors do not know how to treat arthritis. This situation exists because most of the country's 72 approved medical schools fail to teach the rheumatic diseases with any degree of emphasis.

Here is a disease that requires frequent hospitalization—and yet in the whole country there are only about 200 hospital beds for arthritis, as compared to over 100,000 for tuberculosis.

After the patient leaves the hospital, he has to keep up physical therapy for many months to hold in check the muscular and bone changes from the joint inflammation—and yet in the whole country there are only 179 arthritis clinics (and these are mainly in eight large eastren cities) where a patient can get such therapy. Fifteen States have no arthritis clinics whatever.

It is estimated that 2 out of every 3 arthritis sufferers never get treatment by a physician but dose themselves with nostrums, becoming steadily more incapacitated. As for thousands of others, treatment is generally so inadequate and sporadic as to be finally ineffective and they, too, become permanently crippled.

The 4-year-old foundation has used its first million dollars to fight arthritis on both fronts—research and patient care. In the fiscal year ending June 30, 1951, the national office and the chapters spent $225,630 to finance clinical and basic research in arthritis in 46 hospitals and research institutes throughout the United States. We are happy to say that the findings of our clinical studies are already being translated into better care of patients.

Better education for general practitioners in the rheumatic diseases is the key to better care of patients and here we are just beginning to develop a program. The teaching and training centers in the rheumatic diseases are now concentrated in a few thickly populated sections of the country. As fast as funds permit, our chapters are setting up "traineeships," by which promising young general practitioners are compensated while they leave their practices temporarily to study intensively for 3 to 6 months in an arthritis center.

These men then go back to their home communities and not only serve their arthritis patients better but they work to help establish clinics and improve the local hospital facilities for diagnosis and treatment of arthritis and other rheumatic diseases.

Some of the medical schools, at the suggestions of chapter medical men, have put in refresher courses on arthritis for the benefit of practitioners. Many chapters have given lectures and demonstrations on arthritis for doctors and hospital staffs, and one of our most active chapters has arranged a seminar group course on arthritis for doctors to train them as arthritis clinic chiefs. The medical profession is losing its former apathy to the rheumatic diseases and is beginning to

take a keen interest in the new discoveries in treatment. The next step is to induce the medical schools to put more time and emphasis on teaching the rheumatic diseases so that the student will graduate better prepared to handle this problem that will confront him as soon as he hangs out his shingle.

The whole field of rehabilitation of the severely crippled arthritic is still to be explored. Two of our chapters are about to start pilot studies by which we hope to develop ways to restore the practically bedridden, now unemployable, welfare type of cases to a fair degree of bodily function and retrain them for gainful employment in jobs suited to their handicaps. From the results of these experiments we will know better how to help the huge number of arthritics now totally or partially disabled, and we will know approximately how much this will cost.

I would like to emphasize, however, that all that this fast-growing foundation—earning more and more voluntary, popular support every year—can put into the fight on arthritis is not enough, will not operate fast enough, to carry out our principal objectives, which are:

To educate and train doctors in the specialty of rheumatic diseases;

To establish clinics to which patients can be referred for diagnosis and recommended treatment;

To treat the victims of these diseases and rehabilitate the disabled so that they can get back into employment and cease to be a drag on their communities;

And most important of all, to aid in carrying out basic research into the cause and cure of rheumatic diseases, and the development of new drugs and better methods of treatment.

This disease, arthritis, is so widespread, permeating the population so thoroughly, that if we are to make real progress in discovering its cause and cure—and make it soon—we will need supplementary assistance particularly for research from Government funds.

Research, which is fundamental in the struggle to control this disease, has never been more timely and hopeful, for after centuries of groping in the dark, scientists have at last picked up some valuable clues through the hormones, cortisone, and ACTH. We may well be on the eve of important discoveries in this field.

The Budget Bureau has estimated an expenditure of $1,345,000 by the Institute for Arthritis and the Metabolic Diseases in 1953 for new research projects at medical schools and other institutions, and by individuals. On the basis of an informal survey conducted among medical schools throughout the country, we recommend that this appropriation be increased to $4,000,000. Well-thought-out projects for studies have been proposed by enough schools to thoroughly justify this increase.

The whole problem of better treatment for the individual patient is linked up with better teaching and training of doctors in the specialty of rheumatic diseases. No provision is made in the Budget Bureau estimate for 1953 for teaching grants to the medical schools and only a moderate allowance is made for training stipends for graduate doctors. We recommend that a substantial provision, amounting to $1,800,000 be made for grants-in-aid to the 72 approved medical schools to subsidize teaching departments in the rheumatic diseases.

Good teaching and research are related, for most research fellows

spend at least 25 percent of their time in teaching. We suggest that the estimated allowance for research fellowships be increased from $76,900 to $200,000.

Further, we urge that the item of $50,000 for training stipends in the Budget Bureau estimate for 1953 be increased to $462,000 so as to make enough opportunities for specialized education in arthritis available to general practitioners in all parts of the country, particularly those areas of the West and Southwest which are now lacking in arthritis specialists.

No provision whatever is made in the 1953 Budget Bureau estimate for research projects in methods of rehabilitation. And yet we know that in every contact with the individual patient, here are the problems we encounter almost immediately: How to get him to the point where he can take care of his physical wants and cease to be a burden on his family, and how to get him back to working and earning. From the humane as well as the social and economic standpoint, rehabilitaton is a matter of the greatest importance.

The Institute for Rehabilitation has estimated that at the present time, with our present knowledge, it will take about $5,000 to rehabilitate the average arthritis cripple. Through research we hope to cut this cost substantially as time goes on. However, even this is not a high price to pay, compared to the total relief funds he will require if he spends the rest of his life in a wheelchair.

Research projects in methods of rehabilitation by the National Institute of Arthritis and Metabolic Diseases would reinforce on a larger scale the pilot-studies of the Arthritis and Rheumatism Foundation. They would enable the foundation to move into the field of rehabilitation sooner and more intelligently, and with the powerful partnership of the Government agency. Every pilot-study, in effect, would actually rehabilitate the individuals concerned and we would get these people off the relief rolls and back to work in their communities.

Summing up: The rheumatic diseases are a national health problem of the first magnitude by reason of their volume and economic cost. Even if the existing international tension does not break out in another World War, the United States for a longer period is going to be in a war of nerves where every element should be in her favor—the health of her citizens, the productiveness of her industries, the general well-being of her communities. As a measure of simple economy, the prevention of human and industrial wastage, the Government should make adequate appropriations to assist efforts now being made to find the cause, the cure, and eventually, the control of this most prevalent and crippling chronic disease in the Nation.

Mr. FOGARTY. Thank you, General. This is your first appearance before this committee. I believe that is also true of the other three doctors who are going to follow you, because this is a new program as far as the Federal Government is concerned.

It was not until 2 years ago that the new Institute for Arthritis and Metabolic Diseases was authorized by law. As a result this is practically the first full year of operation for this particular Institute.

It has not been inexistence as an Institute as long as the other programs of cancer, heart, and health, so that is perhaps the reason that $3½ million has been budgeted for this Institute in the next fiscal year, but I do want you to know that this committee has pioneered in

this field in heart, cancer, and mental health over the past years because of the conditions that exist and because of the application of facts that have been presented to the public through the voluntary organizations such as you head and the other categorical agencies like heart and cancer; but, at the same time, we have contributed to your interests in other ways.

I presume that you know that in 1948 this committee authorized the building of this new clinical facility at Bethesda, which we believe will be the best in the world when completed and in operation next year, 1953. It will have cost about $60,000,000 to build and equip and buy the land.

Of course, there is space set aside for this Institute out there, as there is space set aside for heart, cancer, and mental health, and we believe that is a step in the right direction to get an institute like that located here where this research can go on and the patients can be right there.

We had the opportunity of seeing a film that was made by Dr. Hench, of the Mayo Clinic, a couple of years ago showing the results of his work with cortisone and ACTH, on some of these patients with rheumatoid arthritis, and as a result of seeing that film and having testimony on the importance and the hope of ACTH and cortisone, this committee appropriated about $3½ million that year for research, including research to synthesize and manufacture these new drugs. So we haven't remained still.

Every opportunity we had when we thought we were on solid ground we have gone ahead and we think have cooperated with the people who are in the forefront in doing research in these particular diseases. I just make that statement for the benefit of those who are going to testify this afternoon, to show that we have had our eyes open and that this is, as far as we are concerned, a new program.

Now hold old is the Arthritis and Rheumatism Foundation?

Mr. KENNEY. This is its fourth year.

Mr. FOGARTY. And you have a drive for funds every year?

Mr. KENNEY. Yes. There is one going on now.

Mr. FOGARTY. Do you have an organization in every State at the present time?

Mr. KENNEY. We have 25 chapters scattered through 28 States, and we are organizing new ones.

Mr. FOGARTY. How much was collected in 1951?

Mr. KENNEY. Just a little over $1,000,000.

Mr. FOGARTY. What is your goal for 1952?

Mr. KENNEY. The goal has been set up to $3½ million. I don't know anyone that thinks they are going to get any more than about two.

Mr. FOGARTY. I think that has been the experience with all these other voluntary organizations, that they are slow to start.

In heart and cancer the amounts that they collected were small, but every year they are going up and the same thing in mental health. They are gaining gradually year by year, even though the Federal Government is contributing to some extent to this research.

Mr. KENNEY. They will do pretty well if they go to two. That will be double what they took in last year, and last year we reached the million mark rather fast, compared with most of these organizations.

Mr. FOGARTY. I think, General, because of the time, I would like Dr. Bunim and Dr. Slocumb and Dr. Crain to give their statements, and then if you would stay, all the members of the committee will ask questions about it at that time. Sometimes we do duplicate if we question three or four witnesses individually.

STATEMENT OF DR. JOSEPH J. BUNIM

Dr. Bunim, will you proceed? Will you state for the record, Doctor, who you are?

Dr. BUNIM. My name is Joseph J. Bunim. I am a physician specializing in arthritis and other rheumatic diseases and have been engaged in the practice of medicine in New York City for the past 16 years. I am associate professor of medicine at New York University College of Medicine, consultant to the Surgeon General of the United States Army serving on the Streptococcus Commission, and to the Veterans' Administration. I am chief of the Arthritis Clinic at Bellevue Hospital, a municipal hospital in New York City, and chief of the clinical research section of the study group on rheumatic diseases at New York University-Bellevue Medical Center. I am a member of the board of governors of the New York chapter of the Arthritis and Rheumatism Foundation and chairman of its medical and scientific committee.

For two decades I have been actively working in the field of rheumatic diseases and in the past 4 years have witnessed a very encouraging transition from apathy and indifference to militant action and intelligent attack against the capital crippler of young and old in this country.

The rheumatic disorders, although among the most prevalent, were the most neglected diseases in America. The medical schools devoted an infinitesimal fraction of their curricula or not any time at all to the teaching of these diseases. It was inevitable that when the medical student completed his training and entered the practice of medicine he was less informed and less resourceful in the management of arthritis than in other diseases.

What is worse, he usually adopted a defeatist attitude toward arthritis and indeed often felt relieved when his patient left him and turned to the chiropractor for help. Those few brilliant men from each graduating class who embarked on research careers never considered this field attractive or fruitful enough to warrant the devotion of years of their lives to it. This enemy, this No. 1 crippler of men, women, and children seemed too invincible to be engaged, too formidable to be challenged.

But happily, in the last 4 years, formal war has been declared against this threat to our manpower. Through the efforts of the pioneer physicians in the American Rheumatism Association, the Arthritis and Rheumatism Foundation was organized and by the vision and wisdom of the United States Congress the National Institute of Arthritis and Metabolic Diseases was established.

Financial support, so long lacking in this country, has been provided for research, for teaching, and for medical care. I am sure you will be pleased to know that already the results are apparent and very rewarding indeed. If I may, I should like to briefly report to you on recent advances made in four important rheumatic diseases.

1. Rheumatic fever. During the first half of World War II in the United States Army alone, this does not include the Air Force or the Navy, 20,000 men, the equivalent of one full division, came down with and were totally incapacitated by rheumatic fever. In Camp Carson, Colo., alone during the year 1943, 257 soldiers were disabled by rheumatic fever. This need not happen again. It has been proved as a result of careful clinical research conducted by Dr. Rammelkamp and his associates that rheumatic fever is now a preventable disease.

2. Gout. This condition which is not at all rare and indeed seems to be on the increase, has the distinction of being the oldest member of the group of rheumatic diseases having been recognized by Hippocrates more than 23 centuries ago. During the past thousand years no significant advance has been made in our understanding or treatment of this disease. Yet in the last 2 years, two important discoveries were made by Dr. Gutman and his coworkers as a result of scientific research.

One, a drug has been found which will increase the excretion of uric acid which supersaturates the blood and impregnates the tissues of patients with gout. As a result of increased excretion, the uric acid concentration of the blood and tissues is reduced to normal limits.

Secondly, by means of labeled isotopes the nature of the disease has been uncovered. It has been demonstrated for the first time that the gouty patient is afflicted with an inborn error in metabolism in that he constructs uric acid molecules to an excessive degree out of certain simple animo acids that nature never earmarked for such sinister missions.

3. Rheumatoid arthritis, the principal villain of all the rheumatic diseases, afflicts more than 1 million and probably 2 million people in the United States. This disease too often follows an inexorable and relentless course that leads to crippling and total invalidism.

In September 1948, Dr. Hench, Dr. Kendall, Dr. Polley, and Dr. Slocumb, who is with us this afternoon, discovered that cortisone can suppress rheumatoid arthritis, and what is more, can often reverse its disabling effects. This epoch-making discovery was a result of 20 long years of patient, scientific research. Yet it does not provide the answer we are looking for. However, as Dr. Hench once said, "We are at the end of the beginning." The future never was so promising as today.

4. Lupus erythematosus. This disease which attacks mostly women in the child-bearing period is not as common as the other three but unlike them, had been invariably fatal, death occurring within several months after onset. Within the past few years, again as a result of clincal research, two important advances have been made. Dr. Hargrave discovered a cell in the blood of these patients which when present establishes the diagnosis conclusively. Hundreds of cases have since been diagnosed by this means which otherwise would have gone on to fatal termination without recognition. Furthermore, this Hargrave cell not only affords the only means of specific diagnosis, it gives a valuable clue as to the chemical nature of this disorder. The second advance is the discovery that cortisone or ACTH can prolong the life of patients with lupus erythematosus. These hormones not only issue a reprieve, they enable the patient to return to normal living. Unfortunately, they do not cure the disease. However, we were never so close to victory.

I shall not burden you further with clinical medicine. I cite these conquests as illustrations of what has been achieved in an amazingly short time as a result of the financial support that has been given to research in this once neglected field. Forty-seven medical schools in this country are asking $7½ million to support the work and teaching in the rheumatic diseases.

This I offer as exhibit A to support that statement.

(The document above referred to is as follows:)

EXHIBIT A

Estimates of funds needed in support of rehabilitation, construction, teaching and traineeships received by the Arthritis and Rheumatism Foundation from 47 approved medical schools

Name of institution	Construction	Rehabilitation	Teaching	Traineeships
University of Oregon Medical School		$5,000	$25,000	
University of Colorado School of Medicine	$700,000		25,000	$9,000
University of California Medical School		10,000	25,000	3,600
New York University College of Medicine	520,000			15,000
University of Vermont College of Medicine		5,000	25,000	
George Washington University School of Medicine		16,000	25,000	3,600
University of Minnesota Medical School	75,000		25,000	
Meharry Medical College		5,000	25,000	
University of Oklahoma School of Medicine		4,200	25,000	
University of Texas School of Medicine	6,000		25,000	
University of Southern California School of Medicine			25,000	
Chicago Medical School			25,000	
Tufts College Medical School	150,000	28,000	25,000	7,200
University of Tennessee College of Medicine	550,000	46,000	25,000	12,000
University of Pennsylvania School of Medicine		6,000	25,000	
Emory University School of Medicine	400,000	15,000	25,000	15,000
Vanderbilt University School of Medicine	50,000	10,000	25,000	6,000
Washington University School of Medicine	380,000		25,000	7,200
Southwestern Medical College of the University of Texas		15,000	25,000	
Northwestern University Medical School	750,000		25,000	15,000
University of Washington School of Medicine	300,000		25,000	100,000
Creighton University School of Medicine	20,000	40,000	25,000	
St. Louis University School of Medicine	10,000	6,500	25,000	
University of Virginia Department of Medicine	300,000	10,000	25,000	7,200
College of Medical Evangelists		3,000	25,000	
Medical College of the State of South Carolina	100,000	141,000	25,000	
University of Utah School of Medicine		3,500	25,000	
Boston University School of Medicine	200,000		25,000	25,000
Marquette University School of Medicine	10,000		25,000	
State University of New York			25,000	
Medical College of Georgia		10,000	25,000	
New York Medical College, Flower and 5th Avenue Hospitals	35,000		25,000	10,000
Western Reserve University School of Medicine	50,000		25,000	3,600
Robert Bent Brigham Hospital (Harvard University)	134,000	30,000	25,000	7,200
Columbia University College of Physicians and Surgeons		8,000	25,000	
Yale University School of Medicine	125,000	15,000	25,000	9,000
Cornell University Medical College			25,000	
Harvard Medical School	50,000	25,000	25,000	
Jefferson Medical College of Philadelphia		5,500	25,000	
University of Maryland School of Medicine and College of Physicians and Surgeons		13,000	25,000	
Medical College of Alabama	5,000	10,000	25,000	5,000
New York University-Bellevue Medical Center Postgraduate School			25,000	15,000
University of Wisconsin Medical School		10,000	25,000	
Howard University College of Medicine		10,000	25,000	5,000
Johns Hopkins University School of Medicine	400,000		25,000	
Woman's Medical College of Pennsylvania	100,000	13,400	25,000	3,000
Tulane University of Louisiana School of Medicine	50,000	25,000	25,000	25,000
Total	5,470,000	544,100	1,175,000	308,600

Dr. BUNIM. To these requirements must be added the need of the National Institute of Arthritis and Metabolic Diseases. Thus, the total estimated budget as proposed by the Arthritis and Rheumatism Foundation is $9,895,000.

We have just begun to fight. We must recruit, indoctrinate, and integrate a small army of research scientists and well-trained physicians. We must utilize, and apply without delay, recent advances in the basic sciences; in physics, chemistry, pathology, physiology, and microbiology. We must design new weapons and equip investigators with modern laboratory tools. We must teach what is being discovered to thousands of medical students and to more than one hundred and fifty thousand practicing physicians in this country alone.

Finally, we must see that the fruits of all this labor reach the victims of these diseases. Many of them are indigent or cannot afford total care. Most of them constitute serious losses to the industrial, domiciliary, and military manpower of our country.

I brought along a photograph of a patient stricken with rheumatoid arthritis, if you are interested. I thought you might see what the disease we are talking about looks like.

Mr. FOGARTY. Could you hold it up for the rest of the committee?

Mr. DENTON. Is that arthritis?

Dr. BUNIM. Rheumatoid arthritis.

Mr. FOGARTY. Have you finished your statement, Doctor?

Dr. BUNIM. Yes.

Mr. FOGARTY. Thank you, Dr. Bunim.

Dr. Slocumb, we will be glad to hear your statement.

STATEMENT OF DR. CHARLES SLOCUMB

Dr. SLOCUMB. Mr. Chairman, gentlemen, my name is Charles H. Slocumb. I am a physician specializing in arthritis and rheumatic diseases.

I am associate professor of medicine at the University of Minnesota Graduate School at the Mayo Foundation. I am a consultant in medicine in the Department of Rheumatology as one of the sections of the Department of Medicine in the Mayo Clinic. I am president of the American Rheumatism Association.

Since 1934 I have been a member of the research team of Dr. Hench, Philip Hench, the head of this team. We had repeatedly observed that nature, by the means of jaundice and pregnancy could reverse this disease, and felt that we sometime could also.

The effects of cortisone and ACTH have been the closest to what nature can do in reversing this disease, so we have observed. I continued to engage in the treatment of patients and continued research in this field of rheumatic diseases. As physicians, we want to master all diseases. There is steady progress and advancement over a period of years, slow, very slow in some diseases, and great progress in others.

The reason is primarily tools with which to work, new ideas, new methods, new medications to offer new avenues of investigation on various diseases. We do not wish to neglect diseases as arthritis has been neglected over a period of years, but because there were so few tools to work with, it was neglected. That was not the wish of the medical profession.

The most fruitful investigation and the greatest benefit from treatment of patients comes in fields where new and original ideas have been brought forth. The quickest results in patient benefits as well as the most information will be obtained in this field.

If medicine is an exact science, we certainly do not know enough about many of the diseases to treat them as an exact science. Medical science needs financial help, but a year-to-year budget of this help must be readjusted each year to meet the changes in our medical knowledge and increases made in the most fruitful fields.

Arthritis and rheumatic diseases certainly fulfill the requirements of a field in which fruitful information has been found and should lead to a much better understanding of this disease and many other diseases. It is also the great crippler and it supplies the largest and best group of patients on whom studies in cortisone, compound F, and ACTH can be carried out. We do not have all the answers regarding these hormones, cortisone, compound F, and ACTH. The study has just begun.

Let me point out just a few of them. In rheumatoid arthritis, rheumatic fever, lupus erythematosus, there appears to be an error in the body, either sensitivity, enzyme upset, metabolism—we do not know just how to define it as yet.

The responsive tissues in this disease are primarily the heart, the joints, fibrous tissues through the body. Many of these patients can correct the error, or the inborn error in them, if they are given time.

Cortisone, ACTH, and compound F suppress this self-destructive process in these tissues in these diseases. By giving these hormones in many of the patients it gives them an opportunity to build up their resistance by controlling this systemic disease for the time being. It also serves to help control the self-destructing process so that if they can effect a remission in their disease they will be left with functioning—not necessarily normally functioning, but better functioning joints and heart.

Furthermore, we are dealing with a hormone that has the broadest effect of any hormone so far studied. It upsets the salt in the body in its metabolism, and in certain instances the nitrogen or protein, the meat that we eat, the sugar that we use, to mention a few of its effects. It affects the metabolism of what we call the mesenchymal tissue. Now that includes the greatest part of body weight, the bones, joints, muscles, fibrous tissues, blood vessels, particularly those.

As a result, it has an effect on many tissues, diseases beyond rheumatic diseases. It affects other endocrines. For instance, men tolerate cortisone and ACTH much better in larger doses than women. Women past the menopause, who have stopped menstruating, tolerate it less well than either younger women or men. It has a suppressive effect on the adrenals.

All of these things must be found out in order to make the administration of these hormones safer and in order to gain information on the patients that are being treated, as well as open up new avenues of study.

Another thing is that rapid withdrawal of these hormones makes the patient function with inadequate cortisone, compound F, and other adrenal secretions. There is a definite increased risk if the patient is subjected to shock or to surgery at this period of time. These patients will stand these shocks very poorly. On occasions patients have died of circulatory collapse because cortisone could not be supplied or was not supplied to them at this particular time.

Rapid withdrawal increases the risk of thrombophlebitis—in women it is called milk leg; not necessarily related to the production of milk, however.

With this study of the intolerance to shock when cortisone is rapidly withdrawn, it has opened up a field of study in connection with the observations that these hormones help a great deal in shock if properly administered at the time of shock, at the time of surgery, or at the time of severe burns, at the time of accidents.

To have a group of patients to work within this group, the studies must be carried out not only with long-term administration, but with short-term administration as well. The patients with rheumatoid arthritis are the main group of patients to whom we feel justified in giving long-term administration of these hormones, for the reason that they stand the best chance of obtaining benefit from this long-term administration, and we feel justified in asking them to accept the risk of some adrenal suppression from the long-term administration.

This is the best group of patients for the study of adrenal function, the effects on the other hormones, the effect of shock on the withdrawal, and should give a great deal of information both for the armed services, and for civilian use of the preparation, as well as for the treatment and handling of the arthritics.

There is much need for investigation, further investigation into other types of rheumatic diseases like gout, and the like. Dr. Bunim has mentioned some of this. There is need for help in rehabilitation and getting these patients back into a useful life and useful living, to preserve joint functions so that they will not get into the crippling stage of the disease.

Now that we have more tools to work with, we can be more effective both in treatment and in study. There is much need in the way of education that has already been mentioned, school needs for fellowship instruction and particularly, may I add to what has been given, the importance of information to physicians who now have these preparations available and who need to be informed repeatedly on how to use them and their dangers as well as their advantages. In review as far as an appeal, I would like to ask the support for the citizens budget for the reason that although the need for it has increased by virtue of the additional information and the need of studying this neglected disease, both from the standpoint of its appeal as crippling diseases, as well as the need for teaching and for investigative work, it is certainly well justified.

Mr. FOGARTY. Thank you, Dr. Slocumb.

Dr. Crain, do you have a statement?

STATEMENT OF DR. DARRYL CRAIN

Dr. CRAIN. Mr. Chairman, and members of the committee, I am Dr. Darryl Crain. I am a physician in private practice here in Washington. I hold a teaching position at Georgetown University Medical School as assistant clinical professor of medicine.

I hold a position there also as director of rheumatology clinic at the hospital, which is the clinic which treats of arthritis and rheumatic diseases. I am associated with several other hospitals as director of the Division of Rheumatic Diseases, both at Doctors and Gar-

field Hospitals here in Washington, and am a special consultant to the Surgeon General at Walter Reed Hospital, where I hold a clinic on arthritis and rheumatic diseases.

Mr. Chairman, I have asked to come here as a member of this citizens committee to ask your committee to include in your budget a sum in excess of what had originally been placed there.

Now as a taxpayer I am very keenly aware of the fact that all appropriations which the Congress makes, particularly on nonmilitary matters, must be scrutized carefully and justified, and I feel I can help to illustrate to you why best by describing to you one or two short experiences which I have had recently in this field.

Last summer I was called to see a woman in her early forties who, when I saw her, was sitting in her bed at home with her legs hanging over the side of the bed supported on a hassock. She had been in essentially that same position except for the fact that she slept in a different position, almost for 6 months.

She had had arthritis, rheumatoid arthritis for some 3 years and had gone steadily downhill until finally she had not been out of bed, in this position for some 6 months.

In examining her, it was obvious that several things had to be done if we were going to make this woman of any use at all to herself and to her family. We admitted her to Georgetown Hospital where she stayed almost 6 months. She is now home and the knees are straight. She is able to be up and about to a certain extent, and she is delighted to report to me that she can now wash dishes, a task which others of us try often to get out of.

This woman got this measure of relief through 5 months' hospitalization and through the teamwork of the rheumatologist, the internist, the orthopedic surgeon, the physical-therapist specialist, and to a large measure by a certain use of the drug ACTH, which Dr. Slocumb has described to you. Had it not been for the use of ACTH, in this particular case, I do not believe the actual result could have been obtained.

Now, contrasting with this woman, there is another woman of some 34 years whom we have been seeing recently who has had all known methods of treatment and who has gone steadily downhill. She holds a very fine position in the city, despite her handicap. She does her typing by holding a pencil between these two fingers and using this one and going over the keyboard in this manner, and does a pretty good job of it. Recently, even this finger has been giving her some trouble. She has had the very standard methods of treatment.

A short-time ago she was tried on ACTH. Within a few days after the ACTH was started her blood pressure began to go up, she began to get swelling in her face and legs, and she began to grow hair on the side of her face, and even when the dosage was reduced to such a point that she got no result as far as her arthritis was concerned, these toxic side actions came.

Now what is it that made ACTH a lifesaving drug, literally, for one woman, because she is now able to fulfill her duties of the house, whereas with the other woman it was no value at all? All of us who use these drugs have some ideas of why those conditions may happen. None of us yet knows. It is going to take a great deal of long, continued, and expensive research in order to find out.

I mentioned a woman who was in the hospital almost 5 months. Her hospital bill alone was over $2,500, a very considerable sum. Had we been doing any experimental work on her, it would have been considerably higher. Those things mount up sometimes almost to astronomical figures.

Throughout all of the country there are persons qualified to do research who have ideas as to what those answers may be. They have submitted them in many cases to the arthritis and metabolic institute, and are asking for funds to try to find out why one woman can be rehabilitated and another one cannot. It is going to take funds, and those are the first things that we need funds for.

The second I think has been mentioned already in the matter of teaching, and I think it might be well to illustrate this too.

Three years ago I was asked to see a patient in a hospital which is connected with the medical school in one of our southern cities, and when I went there to see the patient, who was also lying in bed, the professor of medicine at the university medical school said to me, "I don't know what to do with this fellow, do you?"

Well, fortunately, my training had been in a center which was interested in arthritis. His had not, and the patient was able to be rehabilitated, too. Had the professor there also had the same opportunity to see in his medical school days those cases which I had seen, he would have done just as good a job. We need funds.

Now I appreciate that you gentlemen may say that is not a concern of yours because this man did not learn proper medicine. "Why don't the doctors see to it?" and I have to admit that the accusation against the profession in the past is somewhat justified because of the fact that too few doctors themselves have been interested in this disease.

Unfortunately, however, we find ourselves in a situation now where it matters not who is responsible for the cause of this condition. It is the responsibility of all of us for the cure. The cure in this case is indeed the appropriation of funds for the teaching of these diseases in the medical schools.

General Kenney has already mentioned the lack of this throughout many of our schools in the country. To those of us who have had this special training, it seems appalling that men should not be interested in the disease, and yet sometimes we find that to be true. We do need these funds to teach other doctors how to treat these diseases.

All the men have mentioned the optimistic outlook on this, and all of us feel that way. There is in the future great hope for the arthritics. It, however, is going to mean a considerable amount of work on the part of many people before we can come to the stage where we can say this disease has passed on and is no longer important. It will come, but it is going to need your help. Thank you.

Mr. FOGARTY. Thank you, Doctor. I was under the impression that in the last year or two some means had been found to eliminate these side effects such as hair growing on the breast or face, especially of a woman being treated with ACTH or cortisone.

Dr. CRAIN. The side effects to some extent are related to the size of the dose. That is not always true, but if the dosage of the drug can be kept low, then they do not occur usually.

Unfortunately, some people do not get the antirheumatic effect from a low dosage, and it is necessary to increase the dosage to such an extent that the side actions occur before they get the arthritis-relieving effect, and there has not been, sir, any sure way of preventing the side effects. We don't know what many of them are due to.

Mr. FOGARTY. Compound F has been developed just recently; has it not?

Dr. CRAIN. Yes. Dr. Slocumb can give you more information on that than I.

Mr. FOGARTY. Has that been of any help, Dr. Slocumb, in relationship with the treatment of ACTH and cortisone?

Dr. SLOCUMB. Yes, sir. We have worked with it since 1949, but the supply has been so small that it is only recently that there has been enough for much of a clinical trial. Its formula is very close to cortisone. The difference is in its action, which is apparently this: Compound F has quicker, more complete, and better effect when applied directly to tissues than cortisone, that is, an injection in the knee or for local application somewhere, gives a better result. It appears that it may have less side effect on some of the salts in the body. There has not been enough of it available yet to know whether there will be less side effects with prolonged use.

That study is just under way now, and it will take some months to know whether it is better also in being able to minimize the side effects.

Mr. FOGARTY. The production of cortisone has increased quite a bit in the last couple of years; has it not?

Dr. SLOCUMB. Yes, sir.

Mr. FOGARTY. And the price has also been reduced considerably in the last 2 or 3 years?

Dr. SLOCUMB. Progressively dropped to a small fraction of what it was.

Mr. FOGARTY. That has followed the same course as all other new drugs. The cost was high in the beginning, but when they found ways of producing them synthetically, the cost came down.

Dr. SLOCUMB. That is right. It is generally available now.

Mr. FOGARTY. Can we expect that of compound F, eventually?

Dr. SLOCUMB. Certainly.

Mr. FOGARTY. Will that take some money for research to find ways of producing it synthetically?

Dr. SLOCUMB. Yes.

Mr. FOGARTY. So even with the discovery of ACTH and cortisone, especially in the treatment of those with rheumatoid arthritis, it has not perhaps lived up to the expectations of some of those who were so hopeful of it 2 or 3 years ago. It still has effects on people, on some people anyway, and has rehabilitated them so that they have been able to get back to work, isn't that so?

Dr. CRAIN. Very true, sir.

Apparently cortisone does not stop the disease, does not cure the disease rather. It only stops it. I like to liken it to breaking dam. You have water here, and you have a dam that is holding it back, the water being rheumatoid arthritis which is filling up. You have a hole that it comes through.

If you stick your hand in the hole, no water comes through and that hand is cortisone keeping the water back. As soon as you take your hand away, the water comes through.

Now sometimes if you hold the hand long enough, debris and other things may come around to cure that hole, but that wasn't anything your hand did. That just held it in check until other circumstances could plug up the hole. Then you take your hand away and the water does not come through, and that is what happens in these diseases, too.

Oftentimes you give cortisone over a period, and when you stop it, within a week the patient's activities start right back where he was. In other cases, you give it for a certain period of time and you are able gradually to withdraw the drug and the patient goes on months and months without any recurrence at all. The disease has stopped itself while you have held the symptoms in check.

Mr. FOGARTY. So where there wasn't apparently too much hope before these drugs were on the market, there is some hope now for these people suffering with this disease and eventually you are going to find the answer with these new drugs?

Dr. CRAIN. The hope is tremendous, Mr. Fogarty. To see some of these people after they have been, as this woman has, sitting for 6 months, and then later you come into the house and she almost embraces you each time, she is so grateful for what has been done, and again this has been done mainly through the use of ACTH in this particular case.

Mr. FOGARTY. Mr. Denton?

Mr. DENTON. I gather from what you say you have just scratched the surface on this subject.

Dr. CRAIN. Very true, sir.

Mr. DENTON. Is arthritis ever caused by trauma?

Dr. CRAIN. There is a type of arthritis which we speak of as traumatic arthritis in which the joint is injured and then nature lays down certain excess calcium around it just as if you break a bone, the bone heals, then it has calcium deposits around it to strengthen the bone.

If you injure a joint, these calcium deposits occur around it, too, and they also interfere mechanically with the function of the joint.

Now, the relation of trauma to rheumatoid arthritis is a disputed question and one which we do not know the answer to at the present time. We do know this: That oftentimes a person with rheumatoid arthritis will be well controlled and will be going along for months without any injury or activity. He will have a bad fall, fall down the steps, the knee will swell up, and then he starts activity all over. We see this out at Walter Reed a lot in the aviators.

Parachute jumpers who land and injure their back, a few months later have rheumatoid arthritis, and nobody knows whether the injury actually precipitated or started or caused it, or whether the disease was just in a mild form and this brought it out, but there is a very definite relation of trauma to it, although we cannot give you the answer.

Mr. DENTON. Some years ago the doctors were looking for a focal infection in those kind of cases. What is the theory about that now?

Dr. CRAIN. Some years ago Dr. Ralph Pemberton, who, of course, was the first rheumatologist, spoke at a meeting here in Washington, and he said:

I have gone through three stages in the focal infectious theory. The first time I thought it had everything to do with rheumatoid arthritis, and I went through the country lecturing to doctors to take out teeth and tonsils.

I then swung the other way and said, "No; we have been sacrificing too many sound teeth."

In 1939 in his talk he said:

I am getting back to the other side, because I find that too many doctors now are leaving in definite infections that are still there.

And he said—

I don't know whether focal infection is the cause of rheumatoid arthritis. I don't think it is, but I do know that any patint with rheumatoid arthritis should have every infection cleared, whether to cure the arthritis or to improve the general condition of the patient sufficiently to let his natural resources work is unimportant.

I think all of us feel this. It is not the cause, but it is a definite influencing factor to have an infection anywhere in the body, whether it be a tooth, tonsil, gall bladder, if it is infected, it is holding the body down from doing its best, and it should be eliminated.

Mr. DENTON. I have heard doctors say that all you could do in this kind of a case was to operate and stiffen the joint. What is their idea about that now?

Dr. CRAIN. In some cases that unfortunately is true. When a joint has been so diseased, a knee, for instance, and a hip sometimes will become so diseased and inflamed, the cartilage will be so destroyed that it is a continual source of pain.

I think we are doing less and less of that than used to be done, because we are finding that you can stop the activity, and I hope the day when that will never be necessary will come. Certainly it is less necessary now than formerly.

Mr. DENTON. There used to be heat therapy applied. What is their idea about that?

Dr. CRAIN. I don't think any of us could practice in this field without some use of the so-called physical therapy, whirlpool, heat, diathermy. Those things act, we believe, through a tremendous increase of blood in the tissue.

You can measure—and it has been done—the temperature within the joint. Again assuming the knee is the seat of arthritis, there are times that if you can improve the circulation in that the increased blood flow will improve apparently through washing out toxic products and will stimulate, and that is how we use it.

Mr. DENTON. That is all.

Mr. FOGARTY. Mr. Schwabe?

Mr. SCHWABE. Why is it that the medical profession so long neglected the emphasis that we now say should have been given to the treatment of arthritis and metabolic diseases? What is the reason? Was it because there was less glamour and less fantastic results that may be obtained in a slow developing disease, and heroic treatment was not indicated or known?

What is the reason that they just did not take an interest in it, if you can tell us?

Dr. CRAIN. I don't believe I can tell you why, sir. I wondered myself.

Mr. SCHWABE. Can any of the others give us an answer to that?

Dr. CRAIN. Dr. Osler, Sir William Osler, who is looked back to as one of the great pioneers and at the turn of the century was the leading internist in the country, we quote him in practically everything we do, and he is supposed to have made the statement that when the arthritic walked in the front door, he (Dr. Osler) wanted to go out the back. Whether that held medicine down and the rest of the people decided to emulate him or not, I don't know. It is certainly a fact that is true.

Mr. SCHWABE. Have you any suggestions, Doctor?

Dr. SLOCUMB. In medicine we are taught that we must know the answers and must know the answers right away to a disease if it is an emergent situation, no matter how rare, or if it is a common situation, and then bring along the other diseases in our study a bit later. Rheumatoid arthritis and osteo arthritis are common.

Mr. SCHWABE. And has always been?

Dr. SLOCUMB. And has always been common. A great deal of effort has been made—for instance, back in the Greek days there were studies made on it, but very little as far as effective treatment is concerned, very little effective treatment, not because they did not put in the effort.

Mr. SCHWABE. Very little so far as actual knowledge of the cause of these things, also.

Dr. SLOCUMB. That is right, a few years ago this attitude prevailed in, for example, a patient with cancer, with metastasis. Nothing much could be done for the patient, and there developed a defeatist attitude on the part of doctors and the family because they had, or felt that they had, no levers with which to make progress.

Again that comes back to tools with which to work in the disease. The advances in any disease are made by spurts and by periods when there is comparatively little progress. That is particularly so in arthritis and the rheumatic diseases.

Because there was so little to work with, it was neglected because there were so many other things of concern, and they could contribute so little to the care of the patient.

It has only been in the last 25 years that a concerted effort in this country has been made by the group which formed and later became the American Rheumatism Association, to try and collect such information as was available and for the benefit of the patients. Progress was made.

Gold salts is one of the many treatments, physical therapy which is very important, cortisone and ACTH, compound F coming along as the new and biggest tool with which we can investigate further this disease, and at the present time, the profession itself has been caught with a sudden expansion of interest, yet without many of them having been given the little ground work that had been done in the last 25 years by this small group of rheumatologists in the country.

Mr. SCHWABE. There has been no more quackery in any field in the practice of medicine for the relief of suffering humanity; there has been more in this field than in any field, is that right?

Dr. SLOCUMB. I would agree.

Mr. SCHWABE. All sorts of nostrums and methods of healing, by even those who were recognized as reputable physicians, have been resorted to by the suffering victims of this trouble?

Dr. SLOCUMB. Yes, sir.

Mr. SCHWABE. My father was a doctor, and I am not here to condemn the medical profession. I am very close to them and very sympathetic to every effort which they have exerted for the relief of suffering humanity.

However, I have never been able to understand and answer the question that I ask, or get a satisfactory answer to it, as to why they allowed this physical disorder to continue without very much emphasis on cause and therapy by the approved methods of the profession that have been employed, which were scant and few in number.

I always wanted to know if it is because there isn't as much heroism or dramatic display or something of that sort that most human beings like a little of. I wonder if that is one of the causes that they did not get the interest and the impetus that otherwise has been manifested in almost every other disease.

You take cancer and all these other diseases; they have had various heroic methods of treatment for types of cancer long before we developed very much in the way of treatment of arthritis; isn't that true?

Dr. SLOCUMB. That is true. I don't think of it in terms of heroism and glamour as much as I think of it in terms of discouragement and failure.

Mr. SCHWABE. And the more that continues the more quackery is going to exist.

Dr. SLOCUMB. Failure of response and disappointment to both physician and patient that resulted in very few of them actually seeking medical help once the diagnosis was made.

A case of "should have worked more on it," yes, but a case of "what could they accomplish," our time in investigation, our time must be allotted according to a 24-hour day. With the many avenues to approach and to study, we must take those with the greatest chance of benefit to patients.

There is so much discouragement in arthritis very few of them went into it, not selfishly but because of that.

Mr. SCHWABE. It is one of the great fields, as far as incidence is concerned; one of the greatest, is it not?

Dr. SLOCUMB. That is right.

Mr. SCHWABE. Yet just from the testimony of you gentlemen here it has been neglected in the schools of medicine, it has been neglected by the practitioners, and so far I don't see much progress has been made, because you admit you don't have cures. You may do something with these new drugs that will temporarily retard progress of the disease, but you won't pronounce them as definite cures, will you, as a general rule, I mean?

Dr. SLOCUMB. No, sir. If we were to wait to use insulin until we understood the mechanism of the action of insulin we still would not be using insulin for diabetes.

Yet, I don't think anyone will agree but what it was correct in the study and the procedure that was carried out in the twenties in the relief and use of insulin and the successful treatment of diabetics and other conditions. Here we have a similar situation.

Mr. SCHWABE. Except that as to diabetes you generally had a quicker termination of the patient's suffering by death perhaps. Here you have this long lingering, seldom resulting in death from arthritis, and it seems to me that again you don't have dramatic effect and glamor, and so forth, in connection with the treatment of this disease as you would with others. Whatever you have probably will be a slower form of treatment and cure if you effect one.

Dr. SLOCUMB. My statement regarding that referred to back some years ago. Right now, since there is a great deal more that can be done, the patient will get along much better and be salvaged and rehabilitated.

Since that is the case the medical profession and the medical schools themselves are requesting more help, more help, more help in the instructions of their students and in the instruction of physicians in their localities. They want it. They request it.

They recognize their failures, and we as physicians are coming to your group to help in supplying the need in the medical school for training as well as the treatment and study of the disease. We recognize these shortcomings. That is why we are coming for help.

Dr. BUNIM. May I say something. I would like to make an attempt at explaining why there has not been such interest in this field despite prevalence.

I think one who is familiar with the psychological reaction of medical students and the faculty members of medical schools and of practicing physicians, all three will learn pretty soon that the interest of these men, the interest of the doctor is aroused not by being challenged but by being intrigued, and the best means of intriguing a physician is to present him with very precise knowledge on either the cause or the recognition or the mechanism of action or the cure or treatment of the disease.

In other words, interest as it so happens, it may be unreasonable but nevertheless true, that interest follows knowledge and not the reverse.

Now doctors will not be impressed or interested in a disease because it is a very prevalent disease. That doesn't seem to arouse their interest or draw them into a given field. There are more doctors in this country, research workers, particularly, intrigued and interested in Addison's disease, which is a very rare disease in America, than in arthritis which is a very prevalent disease in America.

The reason for it is that there is some very exquisite precise information which has been elucidated by the research workers in the field of Addison's disease, and following upon that there was a tremendous wave of interest. The amount of time being given to that disease in teaching and in all scientific programs throughout this country is entirely out of proportion to the rarity of this disease.

As soon as they can find either that they understand the cause, which they did not before, or they know the mechanism of how the disease is produced, or they have a means of diagnosis or treatment, then they become extremely interested.

Now let me give you one example. For years, decades, we have been teaching in medical school that there are various types of heart disease. One large group casts aside as a single group congenital heart disease. As a medical student I was taught, and as a teacher I taught others, "don't bother differentiating the various types of con-

genital heart diseases. Just satisfy yourself with knowing this child was born with this type of heart disease and that is all there is to it. The life expectancy of this disease is 10, 15, or 20 years. They never reach maturity."

How about diagnosing the various subdivisions of heart disease? Everybody threw up their hands, "We can't do it." Therefore, the wastebasket diagnosis was congenital heart disease.

Now it has been discovered at Johns Hopkins and at Harvard and at other places that there are certain congenital types of heart disease that can be rectified by surgery, by compensating shunts with other shunts and immediaetly, throughout the country there has been aroused tremendous interest in the diagnosis criteria that will distinguish one type of congenital heart disease from a second, from a third, from a fourth, from a fifth.

Within a period of 3 or 4 years several volumes, several textbooks on the differential diagnosis of these different types of congenital heart disease have been published. To say "I don't know exactly what type it is," stamps an individual as a very incompetent and ignorant physician and he is ashamed to say that.

Now all this tremendous interest and research has followed the presentation or the advance of our knowledge in this particular field as to how to cure it, so that similarly in the field of arthritis we must lead the way and arouse interest by presenting certain definite facts, and the knowledge of the physiology of the joints, the pathology of the joints, the alteration, abnormalities, biochemical reaction, metabolism of the body which has been afflicted with arthritis, and then these doctors will be aroused.

For this reason we understand the importance of research. Unless by the efforts of a few interested pioneering physicians we can, with the aid of research, bring forth new knowledge to arouse the interest of the medical student—and incidentally give the faculty member of the medical school something to teach—he just can't get up there and say, "There are different types of arthritis; the cause of arthritis we don't know; the pathological changes in the type of arthritis we don't know, and how it is gotten we don't know, how to cure it we just haven't got the answer." We can't teach it if we can't arouse any interest in it.

Mr. SCHWABE. You say to him, "If you can cut off this finger that ends it," that is a known result and that is just exactly what the fellow would do as soon as he recognizes the reason for that operation?

Dr. BUNIM. That is right.

Mr. SCHWABE. I think that you have given us a very good explanation, but I don't think you have explained why they haven't heretofore gone on with it and given us some results in this extremely prevalent disease. Not because of its prevalency necessarily, but because it is so prevalent and has been so prevalent all through the ages it does seem that the profession should have done more with it.

Dr. BUNIM. They should have but the doctors simply will not respond to that kind of challenge.

Mr. SCHWABE. I think they are that human. Go ahead.

Dr. BUNIM. They will respond to information. Now the same thing holds true, the same type of development occurred in the field of arthritis as in congenital heart disease.

Now for many years most of the physicians, the average physician in this country and, of course, all other countries did not bother to distinguish between osteoarthritis, rheumatoid arthritis or gout, but when cortisone was advanced as a measure which will effectively suppress and bring relief to a patient with rheumatoid arthritis but will not help a patient with osteoarthritis, only then did the doctor begin to ask, "How can I distinguish rheumatoid arthritis from osteoarthritis?" Then his interest was arousd. Until then he just said, "This is arthritis, rheumatism."

Mr. SCHWABE. Now I want to ask General Kenney what is your basis for saying if this committee recommends and Congress appropriates more money to the extent you have requested here, that the results would be much improved over the present conditions? Where do you get your figures? You are just shooting in the air here as far as we are concerned, you understand.

Mr. KENNEY. I think the substantiation of those figures has already been submitted as exhibit A by Dr. Bunim. Those are figures which have been collected by the Arthritis and Rheumatism Foundation.

Mr. SCHWABE. These are the figures that originally were suggested, were they not, for consideration by the Bureau of the Budget for the most part; is that not correct?

Dr. CRAIN. The original figures; yes, sir.

Mr. SCHWABE. And simply because those figures were not approved by the Bureau of the Budget, are you saying we were right in recommending them and therefore, "We ask your committee to give them. Is that about the argument you have presented to us?

Mr. KENNEY. We are asking for reconsideration.

Mr. SCHWABE. That is what I mean, but you don't tell us what those figures would do, or dollars and cents equivalent to those figures would do as far as I recall.

Dr. BUNIM. We have submitted that in exhibit A. There are substantiating exhibits to go along with those. I just touched on the figures. I don't want to bother you with reading all of this.

Mr. SCHWABE. They are being submitted for the record?

Mr. KENNEY. Yes, sir.

Mr. SCHWABE. All right. Your statement did not contain an explanation of those.

Mr. KENNEY. No; I just touched on them because I knew they were going to be submitted to the committee as exhibits.

Mr. SCHWABE. What reason have you to believe that you could get enough men to go into these special lines of research here who would become interested sufficiently to go ahead in this field rather than in some other field?

Mr. KENNEY. I have just about finished a tour all over the country. I have been wherever we have a chapter, and we have 25 of them in 28 States and we have been organizing some more.

In talking with university heads I find that most of them would like to establish a course in rheumatology. When I say, "Why haven't you established it," they ask, "Have you ever heard of that thing called money?" I ask, "How much do you want, what do you want to do with it," and so on.

Mr. SCHWABE. They have other courses established that they have kept going on for a long time. Why haven't they established these courses?

Mr. KENNEY. I think, when you asked the question a little while ago, that you gave the answer in this spectacular or glamour thing.

I think that very probably doctors work like the rest of us, for the customers, and the customers did not want to die; so they yelled to the doctors and said, "Hurry up and cure the thing that is killing me," and so attention has been concentrated on cancers and tuberculosis and things like that, because people did not want to die.

This arthritic did not die; so he did not get as much attention. I think probably, when he finds out that he can be relieved and helped, that he is going to start yelling and then the doctors will work for the customers again.

Mr. SCHWABE. I hope so. I believe that is all, Mr. Chairman.

Mr. FOGARTY. Mr. Busbey.

Mr. BUSBEY. With the distinguished panel which we have before us today, Mr. Chairman, I would like to explore an idea. Anyone of these gentlemen can answer.

Is there such a situation in arthritis that you would call it an arrested case, and due to certain types of excitement might cause a flare-up, and after that excitement is over it goes back into its arrested stage?

In other words, I happen to know a man who has arthritis, and when he is under pressure and very excited he is subject to severe pains, but if he goes away and just takes a rest and is not bothered with many trials and tribulations the pain leaves him. It has been diagnosed as arthritis. I was wondering what the circumstances under those conditions would be.

Dr. BUNIM. There is no question about the close correlation between the emotional state and the flare-ups of arthritis attacks. Anyone with reasonable experience has seen many such instances where some emotional traumatic episode will produce a flare-up in arthritis.

The death of a parent, a divorce, a son departing for the Armed Forces will cause a flare-up, or even the first attack, the initiation of arthritis in an individual. However, I must also add that that is not specific or limited to arthritis.

There are other diseases in medicine where there is a very close relationship and an interplay between the emotional status and the organic disease. An individual with diabetes subjected to severe shock will——

Mr. BUSBEY. This particular individual has no diabetes or any other ailment that I know of. When he is away from everything he has no arthritis pain; but, as soon as he gets back and gets into something that excites him, then the pain comes back.

What form of arthritis would you call that? It has been definitely diagnosed as arthritis by doctors.

Dr. BUNIM. It is not at all strange. It would fit in well. It is consistent with the diagnosis with, let us say, rheumatoid arthritis.

One cannot make a diagnosis on that information alone, but I can tell you that rheumatoid arthritis will behave just that way in many instances.

Mr. SCHWABE. Worry?

Dr. BUNIM. Yes. One of the patients I have taken care of for the past 12 years was a perfectly well woman. She gave a party for her daughter who had just reached 18, and invited all of her friends, and

then they parted for a planned theater party and some of the young ladies and men who were at the party evidently had forgotten to put out a cigarette.

When she came back from the theater the whole house had burned down, and within a week she came back with an attack of rheumatoid arthritis, and she is severely crippled. There are many such examples I could cite where some such emotional trauma preceded immediately an atack of rheumatoid arthritis.

Dr. CRAIN. There are, of course, other cases in which people without arthritis develop pain in their joints from emotional disturbances.

Now, I would hate to feel that we were diagnosing a specific case which you have in mind, sir, and were attempting to pass on the merits of that patient's contraction complaints; but there are many people who, when they are under stress and strain, fix on their joints just the same as there are others who, when they are under stress and strain, fix on their intestinal tract, and many people have symptoms of stomach ulcer when they are under stress and strain, but they don't have ulcers.

They develop a lot of gas, burping, and are unable to eat this and that when they are at work, but when they are enjoying a summer vacation they can eat anything from A to Z.

There are others who fix on their heart, and during the First World War the well-known "soldier's heart" was often diagnosed. When under stress and strain the soldier became very short of breath. He couldn't go because he had "heart disease."

He didn't actually have heart disease. It was a reaction to stress, and so there are people who have reactions within their joints when they are under stress and strain, which is not true arthritis.

Those are the cases which, very frankly, often give even the expert considerable difficulty deciding whether this has started a true arthritis or whether it is simply a nonorganic reaction within the tissues or even possibly within the patient's mind.

We do not know, but the patient will have symptoms without having true arthritis. I don't know about your individual case.

Mr. BUSBEY. Has there been any appreciable amount of cases that have been treated with cortisone and ACTH that eventually doctors would say has been cured of arthritis?

Dr. CRAIN. I think there has been; yes. Let me qualify that and say in our present state of knowledge we use the term "cure" in rheumatoid arthritis very reluctantly.

Mr. SCHWABE. Loosely?

Dr. CRAIN. No; the other way around, sir. We rarely say "cure."

We say we have arrested the disease or the disease is in an arrested state, because all of us have seen cases that were quite active and we thought were cured, had not symptoms for 5 or 10 years, and then would be reactivated, and all of us are seeing cases of this sort now under cortisone.

Where at the present time the patient has no arthritis, we do not know whether it is completely cured or whether it is only arrested, and in the future something will break out.

Mr. BUSBEY. The arthritic patient, I take it, as a rule is in such pain that they are perfectly willing to try cortisone, ACTH, or anything else to get that relief even if it is temporary.

Dr. CRAIN. Pain is an extremely variable thing. Some people are very severely affected with pain. Others have only a modest amount of it, but there are indeed many people who, as you say, come to you and say, "I will take the chance on the complications if you will give me relief just for a short while."

Mr. BUSBEY. Is the chance of some other reaction to the body taking place where the effect might even be worse than the original state of the condition? I think Dr. Slocumb——

Dr. SLOCUMB. Not if the dosage is properly adjusted. The decision must be made early in handling a patient as to whether or not the disease will be suppressed as much as is possible to suppress the disease in hopes of a quick control over a period of 3 weeks or possibly 4 weeks of administration of the medication, knowing that the dosage is so high that they cannot continue indefinitely at that level, but it has a distinct advantage during that short period of administration.

That as compared with a long-term treatment of the medication, the hormone of a period of some months in which case the hormones must be given first in a dosage which the patient can well tolerate, a physiological dose, not a maximum effective dose, and the patient must be willing to accept the amount of relief in his disease that he gets from that dosage.

If it is administered over a long period of time that way, many of the patients are much improved and rehabilitated, not necessarily completely relieved, although some are, and can go about their business carrying on an active productive life over a period of months, in hopes that they will eventually go into a remission and in the meantime controlling the progression of the disease.

Mr. BUSBEY. I think someone testified here last year that one of the difficulties they experienced first with ACTH was the fact that they discovered they were giving the doses in too large an amount, and they had to cut them down.

Dr. SLOCUMB. Right.

Mr. BUSBEY. That is all, Mr. Chairman.

Mr. FOGARTY. Judge McGrath, have you any questions?

Judge MCGRATH. No questions.

Thank you very much, gentlemen. The committee has benefited by your appearance, and we appreciate you taking the time to come down here.

WITNESSES

MICHAEL FREELUND, EXECUTIVE DIRECTOR, MUSCULAR DYSTROPHY ASSOCIATION
DR. CHARLES McKHANN, DIRECTOR, CEREBRAL PALSY ASSOCIATION
DR. FRANK FORSTER, PROFESSOR NEUROLOGY, GEORGETOWN UNIVERSITY
JOY TALLEY, PRESIDENT, NATIONAL REHABILITATION ASSOCIATION
DR. DAN GORDON, ASSOCIATE PROFESSOR, OPHTHALMOLOGY, CORNELL MEDICAL SCHOOL
DR. CORNELIUS TRAEGER, MEDICAL DIRECTOR, MULTIPLE SCLEROSIS SOCIETY

Mr. FOGARTY. Dr. Forster, we have six people here that we would like to hear by 4:30 or 5; so I think we will ask you to be as brief as you can and still cover the subject.

If you have a prepared statement and you want to file it and talk extemporaneously, we will file that statement for you. Will you tell the committe whom you represent?

STATEMENT OF DR. FRANK FORSTER

Dr. FORSTER. I am Dr. Frank Forster, professor of neurology and of the department at Georgetown University and president of the American League Against Epilepsy, secretary of the American Academy on Neurology, and secretary of the section on mental and nervous diseases of the American Medical Association.

I am here pleading the cause for epilepsy. I would like, very briefly, to touch over some of the historical background of epilepsy and the advances made in it where I think some of the future advances are necessary, and point out how the National Institute in Neurological Diseases and Blindness can be of help in this field.

As far as the history goes, epilepsy of course, is a disease that dates back to antiquity. We can quickly divide the era into that prior to 1870 which is an era of superstition—you may perhaps be interesed to know that the old Roman name for epilepsy was Amorphis Kimitalis, the building for the Roman Senate. It was the custom for the Roman Senate to adjourn sine die when anybody had a seizure because that was a sign of the Gods that no more business should be transacted that day.

I think that is a cogent of what the situation was in epilepsy, the superstitions and feeling of evil spirits or good spirits that played a part in it.

The second period in 1875 was marked by the introduction of neurology upon the scene and there has been clear thinking in the development of a rational approach. Prior to that there was no real good treatment until an English physician administered bromides to epileptics to cut down their sexual desire, and found this sedative was effective in preventing seizures. From that year until 1912 there was no advance, when a barbital was introduced. A doctor in Europe

thought if a sedative worked in stopping seizures, let's try this. Once again they hit upon a good measure for seizures.

There was no real advance until 1938, and this marks the introduction of a new scheme, a new process. At that time Dr. Putnam in Boston was concerned with the fact that in order to stop seizures it was sometimes necessary to give large dosages that the patients might be helped. The patients' relatives would come in and say, "Doctor, it is nice that he doesn't have the seizures, but he sleeps all the time."

They wondered if it was possible to separate the anticonvulsion effect from the sedative effect, so they went to the drug houses and asked them to let them have the samples of medicines that they made for new sedatives in a rapid search of the drug houses, always trying to beat each other to the gun for the best medicine.

So they obtained these drugs that were presumably sedatives and which were not successful, gave them to cats and induced seizure in the cats by electric shock and then took those of these sedatives that were most successful in stopping seizures and gave them to patients, after first testing them for their security purposes, and found that the best one of them was a drug called dilantin.

Now this rational approach has since profited in that there are a half dozen other medicines since that time available which have grown out of that, and there are at least six more still in the experimental stages not yet released. That is a little note on the development.

Now, why the importance of epilepsy? The incidence of epilepsy is 1 out of every 200 people who have seizures. That means here in the greater Washington area with a population of approximately 1 million, there are 5,000 people with seizures. That means in New York, with a population of 7 million, there are 35,000. That means across the country there are 800,000 epileptics.

Actually, that figure is, if anything, low because added to that must be the head injuries, particularly the service head injuries, the war casualties which would up that figure still more, so that 800,000 is a rather conservative figure, we feel, and is by no means a small medical problem.

You might wonder why is this a problem of neurology. The development in the thinking of the field of epilepsy has been dependent upon the growth and development of neurology and that is not the only explanation. In the actual handling of the individual patient, one is not entirely concerned with merely pushing pills to stop the seizure.

Each patient who has seizures presents a problem in epilepsy, and many of these people are telling you the order in which the various parts of their brains are fired, if we can translate it.

I think a good example of that is a young man we had in the hospital at Georgetown who came to the out-patient section because he had seizures which sounded like ordinary seizures, but he told us that he heard music. He was ashamed to admit that because it sounded a little bit psychiatric, but he heard music at the beginning of each seizure, and as soon as he said that, in the hospital he went.

In the course of his study he turned out to have a tumor in the temporal lobe near the hearing part of his brain, and this of course started off that area of his brain firing first so that he heard this choral music, as he described it.

Now that is a particular neurological problem and requires a particular neurological finesse. The understanding of the problem of the individual epileptic is the understanding of the problems of the brain.

Now in these introductory notes of the development of epilepsy, we touched to some extent on the advances. To go on further with this, Hughlings Jackson, who is one of the first fathers of neurology, described epilepsy as an excessive discharge of the gray matter of the brain. Now this gray matter is the outermost part of the brain. In this country we have seen the development of the field of electroencephalography or brain waves and we can point with pride to the work of Dr. and Mrs. Gibbs. By their brain-wave studies they have shown Hughlings Jackson was right, that it is an excessive discharge and that it is an electrical discharge.

Now this fundamental work was made possible by the parent institutions, Harvard and the University of Illinois, by grants from the Rockefeller Foundation, and in recent years it has been financed in a large part by the Public Health Service.

The medical treatment developed also as we pointed out previously, was not only Dr. Gibbs, but in the hands of Merritt, Putnam and also in the hands of Dr. Lennox and Dr. Gibbs. There is still much desired for medical treatment.

The gains that have been made are largely directly or indirectly attributable to funds from research foundations and more particularly from the Public Health Service. These young disciples of these doctors have gone out across the country and have started new clinics, tried new medicines, and have generally improved the treatment of epilepsy. It is because of these disciples and their masters that we can now say about 80 percent of the patients with seizures have their seizures controlled. That is not cured, but controlled.

Now all of the advances have not been on the medical side. There have also been advances in the neurological side. Patients whose seizures begin from one part of the brain have been successfully cured by having that particular part removed. This has been largely in Montreal, Walker, Baltimore, and so on.

Now while these advances are great, there is still a staggering amount of unfinished business. We don't know the fundamental cause of epilepsy. We know it is an excessive electrical discharge, but why should the brain suddenly break forth in a storm of electrical discharges which we do not know the answer to?

Now this may be due to one of two things. There may be one particular driving point in the brain from which these seizures come and that they suddenly fire the entire brain, or there may be some fundamental chemical reason why the entire brain fires at once. This is obviously a very, very important problem and one which is not near solution, and it would seem that, from the future, if we are going to profit in direct treatment, we have to understand that.

We therefore, need active neurological centers with good biochemical research and brain-wave workers so that we can solve these basic problems and the very cause of epilepsy. The important need is that of more doctors to treat the patients.

While 80 percent of these patients are reasonably well controlled, that 20 percent is a staggering number and a distressing number both

to the doctors and to the patients. Our goal is no seizures for any patient.

We need not only the drugs but we need the men to use them and to educate the men to use them. They must be trained in neurology as well as in the matter of the doses of medications.

I think we can point up to the need for men in this field. For instance, in our clinic at Georgetown we limit the number of new patients to four a week because at the present time I don't have the mature staff to handle a great load yet. I have a group of residents coming through and I expect in a year or so that we can really up that and take the limit and handle everybody who needs it.

Now the needs in epilepsy are not along the line of medicine and personnel and basic understanding but there are also matters in the legal complications of the disease. In one of the States of the Union there is a statute against the marriage of epileptics.

The laws regarding driving licenses are chaotic, and obviously some study should be made of this legal situation and some recommendations should come from a group of physicians interested in the problems of epilepsy and also in the protection of the community, and it certainly must be unbiased.

These legal implications also include the matters of employability and in employment insurance. There are certainly no more unhappy persons than the epileptic who is freed of his seizures, who takes his medicine religiously but who cannot find a job because of this stigma attached due to the fact that he is known to have had seizures.

We think that well trained neurologists out in the communities serving as assets could do much at the very local level to solve these problems and aid in the reemployment of these epileptics.

Now this is an outline of the magnitude of the problem and some of the advances we have made up to date and some of the future investigations which are needed. My purpose here is to bring before you these needs and respectfully request your attention to the manner in which they may be accomplished.

The development of the National Institute of Neurological Diseases and Blindness is a plowshare to turn the soil of ignorance in the matters of epilepsy and prepare the soil for the seed of new knowledge. An appropriation of $750,000 to a million dollars for research projects in this field will permit the expansion of research projects already under way and initiation of research projects in other epilepsy centers so that we might look forward to development of newer, better medications, to the early solution of the problem of the basic cause of epilepsy and to the finer development of neurosurgical techniques for the surgical treatment of epilepsy.

We might look forward to the development of newer and better medications than the early solution to the problem as to the basic cause. There is also a need for research fellowships, young men trained in neurology who could then be placed on a research basis and would serve to investigate into these problems. I think they might do a great deal by their interest and vigor and ability toward the solution of these more important problems.

Now the matter of teaching and training is an important one because there is an urgent need for the training of more men in neurology. Neurology is one of those fields that appeals to the young

men in medicine if it is brought before them factually. It has much of that appeal that is absent in certain other fields. I think that we could, by increasing the teaching and training, induce the young men to go into this field and to fill the needs.

I believe that another way in which this might be helped would be by State aid so that in some of those areas where epilepsy clinics are not available, if moneys were granted to the public Health Service and by them to be allocated to the States and earmarked for the development of new brain-wave laboratories and new epilepsy clinics and centers, that much can be done to help those patients who live in areas away from Washington, Philadelphia, New York, Chicago, and live in the smaller areas where there are not great teaching hospitals.

I think that this is a particular pressing problem in view of the incidents and the stigma which is attached to it and the important facts that remain to be uncovered, and the progress made just serves to sharpen the eagerness of the young investigators in this field.

I would like to point out to you these problems, the survey of the possibilities and respectfully ask you to reconsider the grant in the budget for the Institute of Neurological Diseases and Blindness. I think, by adding there for training and teaching, by increasing the research fellowships and by including funds for re-granting to the States, that much can be done to solve these basic fundamental problems which afflict a great number of our people.

Mr. FOGARTY. Thank you, Dr. Foster, for your excellent statement. Due to the fact that the doctor has to go back to class at Georgetown, are there any questions on his part of the presentation? If not, your prepared statement will be incorporated in the record at this point. Thank you very much, Dr. Forster.

(The prepared statement presented by Dr. Forster is as follows:)

While epilepsy is a disease known to antiquity, actually the entire history of epilepsy can be divided into two eras; that before about 1870 and that since then. The first period is one of ignorance, superstition, and of the attachment of stigma to the disease entity. The second period since 1875 is one marked by the introduction of neurology upon the scene through clear thinking with the development of a rational approach. There was no satisfactory medical treatment of epilepsy prior to the introduction of bromides in the year 1867. Incidentally, bromides were quite inadvertently discovered to be efficacious and were really given to decrease the sexual drive of patients with seizures. It was found only as a corollary that the bromides actually decrease the number of seizures. Bromides are also sedatives, and in 1912, when phenobarbital was brought forth as a sedative, Hauptman concluded that at least this drug was worth a trial as an anticonvulsant. From that day in 1912 until 1938 there was no real advance in medical therapy until Putnam and Merritt introduced dilantin. This marked a landmark, not only in the introduction of a new drug, but an approach from a scientific standpoint to an evaluation of medication. Dilantin was not merely an emperical choice, but actually the development of dilantin was dependent upon the demonstration of its efficacy and followed a line of reasoning. Doctors Merritt and Putnam felt that it was not necessary for a drug that would stop seizures necessarily to be a sedative. They sought meticulously through the drugs which had been developed by the drug houses as sedatives only to be discovered to be nonsedatives. These failures in sedation were given to animals and the animals in turn were subjected to electrically induced seizures and the efficacy of the drugs compared.

The most effective of these nonsedative drugs against the electrically induced seizures was found to be dilantin. This was also a suitable drug for administration to patients. Since that time, at least five new preparations have been made available and at least that many are under experimental investigation at the present time. Unfortunately, however, all of these drugs are within the same

chemical category and at the present time the development of anticonvulsive drugs is largely in the hands of private individuals, namely, the drug houses, for the very simple reason that the teaching institutions do not have the facilities or the wherewithal to back this very important investigation in medications.

The incidence of epilepsy is such that it presents a staggering problem. One out of every 200 people of the total population have seizures as judged by the draft figures of both World Wars. This would give an incidence of approximately 5,000 in this greater Washington area; an incidence of 35,000 in a city of the size of New York or an incidence of 800,000 across the Nation. This is by no means a small medical problem.

It might well be asked why is epilepsy a particular problem of neurology. The development of thinking in the field of epilepsy has been dependent upon the growth and development of neurology. This is not the only explanation. In the actual handling of an individual patient, one is not entirely concerned with merely pushing pills to stop the seizures. Each patient who has convulsions presents himself as an individual problem in brain function, for convulsive seizures are due to abnormalities in the electrical activity of the brain, and therefore, the proper understanding of the problem of epilepsy is dependent upon the proper understanding of the function of the brain, or, in other words, upon the work of neurologists.

The introductory notes on the development of the field of epilepsy have touched to some extent on the advances. This, however, should be further elaborated. Hughlings Jackson, one of the first fathers of neurology, described epilepsy as an excessive discharge of the gray matter of the brain. This gray matter is the outermost portion of the brain itself. We have seen the development, largely in this country, of the field of electroencephalography or brain waves, and we can point with pride to the work of Dr. and Mrs. Gibbs formerly in Boston and now in Chicago. They, by their brain wave studies, have shown that this sudden discharge of the gray matter described by Jackson is an electrical discharge and that the type of seizure is determined by the type and location in the brain of the discharge. This fundamental work of the Gibbs' was made possible by grants from their parent institutions and from the Rockefeller Foundation, and in recent years has been financed in large part by the Public Health Service.

Medical treatment has developed, as we noted before. It was developed in the hands of the Gibbs', in the hands of Dr. Lennox, Merritt and numerous others. There is still much to be desired for medical treatment. The gains that have been made are in large part indirectly or directly attributable to funds from research foundations and most particularly from the Public Health Service. The young disciples trained by Lennox, Merritt, and Gibbs and others have gone out into the field of epilepsy across this country, begun new clinics, tried new medicine, set up new brain wave laboratories, and, in general, improved the treatment of patients. It is because of these disciples and more so of their masters that we can now point to the fact that some 80 percent of epileptics have their seizures controlled by medical therapy.

All the advances have not been on the medical side. From the surgical standpoint, the advances by Dr. Penfield, of Montreal, by Dr. A. Earl Walker of Baltimore, Percival Bailey in Chicago have done much to point the way toward surgical treatment of epilepsy in those patients whose seizures start from one particular part of the brain and whose seizures cannot be controlled by medical therapy.

While the advances in the field of epilepsy are great, there is still a staggering arount of unfinished business in this field. The fundamental cause of epilepsy is as yet unknown. There are, at the present time, two trends toward this direction. One of the most intriguing problems is why patients with convulsions may have brain waves which are normal and then suddenly have a storm of electrical discharges over the entire brain at the same time. This may either be because one small region deep within the substance of the brain is able to set the entire brain into abnormal firing. Or, this may be the result of sudden chemical change over the entire brain. Obviously, this is a very important point and the development of treatment to combat seizures on a rational basis must be directed toward whichever of these possibilities is the correct one. The need for research here is obvious. There is also a need for new drugs. The epileptologists are becoming increasingly aware of the fact that all of the medications in use at the present time are chemically related; they are indeed cousins. Because of this close relationship and the too long of plowing of one field, we are beginning to suffer from the failure of crop rotation. What

we need are medications of different types, but at the present time, we are dependent in large part upon the drug houses for making medications available. What we need are neurological centers with active biochemical members in the department of neurology who can solve these basic problems in the chemistry of seizures and in the chemistry of medicines to stop seizures.

An important need is that of more doctors to treat patients with seizures. While 80 percent of the patients are reasonable well controlled, this is certainly not satisfactory, either to the doctors or to the patients. The goal of the epileptologists is no seizure for anyone. We need not only drugs, but we need the men to use them and these doctors must be trained in neurology. It is not proper to train men merely to adminster drugs, to teach them the complications from the use of certain drugs or the indications for certain drugs. It is absolutely necessary for anyone dealing in epilepsy to have a good fundamental understanding of the structure of the brain, of the functions of the various portions of the brain, as well as a clinical grasp of the diseases of the brain. This is especially so since convulsive seizures may occur as a disease by themselves, namely epilepsy, or the seizures may merely be the first sign of serious disease of the brain as a brain tumor, brain infection, scarring of the brain from an injury, or the result of a poor development of a small part of the brain during childhood. We, therefore, not only need doctors who are neurologists. The need for this can be demonstrated in my own epilepsy clinic in Georgetown University Medical Center. Here, because of the shortage of neurologists, we must limit our new patients to four per week because of the small staff available. This staff is small, not because of any policy of the school or the department, but because of the small number of doctors available. This is one of the few epilepsy clinics in this area. At our own service at Gallinger Municipal Hospital we are unable, at the present time, to set up an epilepsy clinic because we cannot supply the staff to man the clinic. While it is unpleasant admission, it is better to have no clinic than to have one not properly staffed. The needs in epilepsy are not only along the line of medicine, personnel, and basic understanding but include also such matters as the legal complications of the disease.

In the State of Connecticut there is a law on the statute books which forbids the marriage of epileptics. The laws in regard to driver's licenses in the various States are confusing and contradictory. Obviously, some studies should be made of this legal situation and some recommendations should come from a group of physicians interested in the problems of epilepsy and also in the protection of the community. The legal implications also involve such matters as insurance laws and this brings us to the matter of employability of epileptics. There is no more unhappy person than an epileptic patient whose seizures are controlled, but because of the stigma of his disease, he is refused employment. Well-trained neurologists who are assets to the community in which they live and practice can do much to allay the sometimes medieval fears regarding epilepsy and solve, at the source, many of these problems of employment.

In these preceding paragraphs, we have outlined the magnitude of the problem of epilepsy, the advances made to date, indicated the credit due to the Government and foundations for having backed to the present time, the investigations in this field. We have also outlined the definitive needs in the field of epilepsy, and my purpose here today is to bring before you these needs and respectfully request your attention to the manner in which they may be accomplished. The development of the National Institute of Neurological Diseases and Blindness is a plowshare to turn the soil of ignorance in the matters of epilepsy and prepare the soil for the seed of new knowledge. An appropriation of $750,000 to a million dollars for research projects in this field will permit the expansion of research projects already under way and initiation of research projects in other epilepsy centers so that we might look forward to development of newer, better medications, to the early solution of the problem of the basic cause of epilepsy and to the finer development of neurosurgical techniques for the surgical treatment of epilepsy.

If some $200,000 were available for research fellowships, 50 young physicians already trained in clinical neurology or allied fields could be turned to these research problems. Their interest, vigor, and ability could be channeled toward the solution of these more important problems of epilepsy. It is important to note that in the 1952 budget and in the budget estimate for 1953 there is no facility for the teaching of medical subjects in the Institute of Neurological Diseases and Blindness. I have already pointed out that the treatment of epilepsy is not merely pushing pills. No real gain will be made until there are enough neurologists and until medical students, interns, and residents in other

fields are acquainted with the fundamental facts of neurology as we know them now. If no budgetary arrangement is made for the teaching of neurology, we are then looking at the last members of a dying race. It is necessary to train young men so that they can ultimately rise to the chairs of neurology. If the chairs of neurology collapse, there is no future for epilepsy. It is, therefore, urgent that provision be made for the teaching of neurology, and if the budget arrangement of $1,000,000 can be made, the various departments of neurology that urgently need funds can be activated to develop teaching. As a young neurologist who has set up a department of neurology within the last year and a half, I can understand this problem well from my personal experience. The appropriation of this million dollars for the teaching of neurology would permit the present one-man departments, which are all too frequent across the country, to be increased by the addition of other personnel, and the departments, instead of being the concepts of one man, would present coherently the multiple opinions of many men. Even in neurology, two heads are better than one.

In addition to these categories, training stipends in neurology should include training stipends for young men interested in epilepsy. Ten young men on a stipend of $3,600 per annum or a total of $36,000 would permit 10 previously fairly well trained men in the fields of neurology to round out their training by gathering experience under men in other university set-ups with slightly different viewpoints than their previous teachers. From the standpoint of epilepsy, it is also important to note, that in the current budget and in the current estimated budget of 1953 there is no suggested appropriation for grants to States. An appropriation of $1,000,000 for this field of epilepsy would make it possible for the Institute of Neurological Diseases and Blindness to make available to the various States funds which in turn they would be required to use for the development of epilepsy clinics. Epilepsy clinics at the present time are few and far between and are present chiefly in the large medical centers. Obviously, all the patients with seizures do not live in close proximity to these areas. This would, of course, not only serve the purpose of increasing quality and quantity of the medical care, but would immediately succeed in interesting doctors in the field, and therefore, indirectly lead to the further solution of our pressing problem.

Epilepsy is a particularly pressing problem in view of its high incidence, the stigma which are attached to it and the important facts which yet remain to be uncovered. This is in itself stimulating. The progress made to date serves to sharpen the eagerness of the investigators in this field. I point out to you these problems and survey the possibilities of solution and bring to your attention that whether or not these problems are solved is in large part inherent in your decision regarding the appropriations. I, therefore, respectfully submit to you this statement and suggest that you consider these proposals for appropriations, $3,036,000 which I, in conscience, believe are urgently needed, which are adequate and yet not inappropriate in amount.

Mr. FOGARTY. Mr. Freelund will present the next statement. You are the executive director of the Muscular Dystrophy Association. That is a new association?

Mr. FREELUND. Yes, sir, comparatively new.

Mr. FOGARTY. Tell us something of your background also please.

MICHAEL FREELUND, EXECUTIVE DIRECTOR, MUSCULAR DYSTROPHY ASSOCIATION

Mr. FREELUND. Yes, sir. I am an attorney by profession who has mended his ways and has gotten into more humanitarian work. I came into this work a few years ago and have been connected with other voluntary health associations in an indirect way and directly with this association for 1 year now, during which time I have been the executive directcor of the Muscular Dystrophy Association, in fact, its first executive director.

I am a practicing lawyer, as I say. I am not any longer practicing but I was admitted to the bar in 1929.

The Muscular Dystrophy Association of America, of which I am executive director was formed in April of 1950 by a group of victims of muscular dystrophy, and by the parents of children afflicted with this disease.

The disease is one which affects, for the most part, young boys who contract this condition at some time when they are between the ages of 3 and 6 years. With no abnormality of any kind other than a progressive nonrelenting degeneration of voluntary muscle tissue, they pass from stage to stage of increasing weakness and paralysis ruining function after function, until at some time around the age of puberty the muscles are completely flaccid and the victim is immobile. When the victim reaches this stage he generally succumbs to the first serious infection which attacks him, usually one involving the respiratory system, during which, due to an impairment of function of the breathing muscles, the victim is unable to clear his bronchial tubes and consequently suffocates.

There are a minority of cases which strike in adulthood and early maturity, which follow the pattern of the disease in children, but which proceed at a slower pace. It may generally be stated that the earlier the age of onset, the more rapid the rate of progression.

I have attached to, and made a part of my statement, as though it were fully incorporated with my statement, a summarization of the more pertinent facts concerning muscular dystrophy, and I ask, Mr. Chairman, that that be considered part of the record.

Mr. FOGARTY. It will be done.

(The document above referred to follows:)

STATEMENT OF MICHAEL E. FREELUND, EXECUTIVE DIRECTOR OF THE MUSCULAR DYSTROPHY ASSOCIATIONS OF AMERICA, INC.

The Muscular Dystrophy Associations of America, Inc., of which I am executive director, was formed in April 1950 by a group of victims of muscular dystrophy, and by the parents of children afflicted with this disease.

The disease is one which affects, for the most part, young boys who contract this condition at some time when they are between the ages of 3 and 6 years. With no abnormality of any kind other than a progressive nonrelenting degeneration of voluntary muscle tissue, they pass from stage to stage of increasing weakness and paralysis ruining function after function, until at some time around the age of puberty the muscles are completely flaccid and the victim is immobile. When the victim reaches this stage he generally succumbs to the first serious infection which attacks him, usually one involving the respiratory system, during which, due to an impairment of function of the breathing muscles, the victim is unable to clear his bronchial tubes and consequently suffocates.

There are a minority of cases which strike in adulthood and early maturity, which follow the pattern of the disease in children, but which proceed at a slower pace. It may generally be stated that the earlier the age of onset, the more rapid the rate of progression.

Attached to and made a part of this statement, as though fully incorporated herein, is a summarization of the more pertinent facts of muscular dystrophy.

It is estimated that there are approximately 100,000 victims of this disease in the United States; others, among these being the United States Public Health Service and the Metropolitan Life Insurance Co., estimate the number at 200,000.

Until the formation of this association there was indeed a bleak outlook for the victims and their parents, for not alone was the cause of the disease unknown, and not alone was there no effective treatment known—there also was very little, if anything, being done about it.

Today the victims of musclar dystrophy throughout the land have real reason to be hopeful, for with funds supplied by this association, there are now nine separate research projects under way looking toward the finding of the cause

and an effective treatment for this appalling disease. This research work is being carried on at the following institutions in the United States:

The New York Hospital-Cornell Medical Center (New York)
University of Pittsburgh (Pennsylvania)
University of Rochester (New York)
Institute for Muscle Research (Woods Hole, Mass.)
Duke University (Durham, N. C.)
Alabama Polytechnic Institute, (Auburn, Ala.)
State University of Iowa

In addition to the foregoing there are now applications under consideration by the association from other institutions, and requests have been received from approximately 15 other investigators who are now preparing applications which are expected to be submitted to this association very soon.

The existing research program of the association, taking into account only those programs now actually being supported, will require an outlay of approximately $175,000 during the year 1952. If the other research programs are found worthy of support and are approved, it is estimated that an additional $325,000 would be required to support the work. This is beyond the financial capabilities of this association to support.

It would be a tragedy, indeed, if funds could not be supplied to provide the research in which, at long last, interest has been stimulated, for the disease is one which can succumb to an intensive research attack. We know that muscular dystrophy can be produced experimentally in rabbits by the deprivation of vitamin E, and we know that these rabbits can be restored to perfect health by the restoration of vitamin E to their diets. Unfortunately, some metabolic process that occurs in the rabbit does not occur in the human being. In the course of efforts to provide a form of vitamin E for the human, a certain type or form has been tested experimentally with some beneficial results. An expansion of this particular phase of the research work may lead to more conclusive results. In the considered opinion of medical men who are traditionally most conservative, muscular dystrophy seems to be the type of disease which can be conquered, given enough research brains and enough funds. It would be, indeed, a glorious victory if muscular dystrophy could take its place on the list of those dread diseases which no longer afflict humanity, and which remain nothing more today than a horrible memory.

It is for this reason that I most respectfully urge the adoption of the budget of $10,700,000 for the support of the National Institutes of Neurology and Blindness of the National Institutes of Health, which embrace muscular dystrophy.

[From Muscular Dystrophy Associations of America, Inc., New York, N. Y.]

THE FACTS IN BRIEF ON MUSCULAR DYSTROPHY

I. What is muscular dystrophy?

Muscular dystrophy is a chronic, noncontagious, progressive disease manifested by weakness and wasting of the voluntary muscles, with eventual involvement of the entire muscular system.

II. What is the cause of muscular dystrophy?

Its cause is unknown, although some scientists believe it is due to imperfect or faulty nutrition of the muscles—an improper function in the body's complex chemical processes which causes muscles to degenerate until they are useless. The disease attacks voluntary muscles group by group until motor paralysis is complete.

III. Does it kill its victims?

Muscular dystrophy itself does not kill its victims but it weakens the muscles until the victim falls prey to other diseases, primarily respiratory ones such as pneumonia. The patient is unable to cough or sneeze and is thus apt to succumb to suffocation.

IV. What are the symptons of muscular dystrophy in children?

Symptoms in children are constant falling, difficulty in ascending stairs, a peculiar side-to-side waddling gait, great difficulty in rising from a lying or sitting to a standing position, increase in the size of the affected muscles particularly in the calf, and contractures (leading to distortions) of the affected muscles. There is no pain.

V. What are the symptoms of muscular dystrophy in adults?

Symptoms in adults: The earliest muscles affected are those of the shoulders, upper arms, thighs, and back, and, in a certain form of the disease, the face in which the patient has a "transverse" smile and cannot whistle or drink through a straw. There is no pain.

VI. How many people are suffering from muscular dystrophy in the United States?

An estimated 100,000 men, women, and children in the United States are dying as a result of muscular dystrophy. The disease is 100 percent fatal, as the cause and cure are unknown to science today. Due to the high prevalence of inaccurate and delayed diagnosis, this figure probably represents a conservative estimate. Many cases are mistaken for rickets; often the disease simulates the symptoms of asthma, heart trouble, rheumatism, etc., and these cases are not properly diagnosed and therefore not counted in such an estimate.

VII. How many doctors specialize in muscular dystrophy?

In the United States, very few men are doing a fulltime research job on muscular dystrophy. One of the few is Dr. Ade T. Milhorat of the Cornell Medical Center in New York City who has spent 20 years studying the disease. He has been able to produce experimental muscular dystrophy in rabbits and has been able to cure this experimental muscular dystrophy, but the same method of cure proves ineffectual in humans.

VIII. How are the known cases of muscular dystrophy apportioned as to age groups?

More than 50 percent of muscular dystrophy victims in the United States are children between the ages of 3 and 13. Of these, few will reach adolescence and almost all will die before maturity. In general, the earlier the age of onset, the more rapid is the course of the disease. This type in children—pseudohypertrophic—is by far the most prevalent form of the disease. It is hereditary in 35 percent of all cases and affects three times as many males as females.

The juvenile form has its onset in childhood or adolescence, its progression is slower, and patients may reach middle age. This form is hereditary, and males and females are equally affected.

The facio-scapulo-humeral form commences in early adulthood and affects the facial muscles, shoulders, and upper arms.

The mixed types are a group of conditions which have their onset between the ages of 30 and 50. Not inherited, it can strike anyone. The course of the disease is very rapid, often causing death in from 5 to 10 years.

IX. What part does heredity play in muscular dystrophy?

Contrary to past belief heredity enters into only one out of three cases. Two out of three cases strike without warning or family history. One dreadful aspect of the disease is its frequent familial attacks with no prior family history. The disease has striken as many as six children in one family. In the pseudohypertrophic form of the disease which usually shows definite family trends affecting almost exclusively the males, transmission occurs via the mother who herself is not afflicted.

X. What is being done to find treatments and cures for muscular dystrophy?

A. At the University of Utah in Salt Lake City, the United States Public Health Service is supporting a statistical program which is exploring the hereditary aspects of the disease under the direction of Dr. Frank Tyler.

B. The Muscular Dystrophy Associations of America since its founding in 1950 has done the following:

1. Supported and enlarged the research project at New York Hospital-Cornell Medical Center, under Dr. Ade T. Milhorat. This is, by far, the most extensive research program in muscular dystrophy now underway and involves a metabolism ward, dietary kitchens, laboratory animals, extensive laboratory facilities and a large staff of investigators and technicians.

2. Initiated and is financing an investigation in the biochemistry of muscle in progressive muscular dystrophy at the University of Paris, France, by Dr. Georges Schapira and Dr. Jean-Claude Dreyfus.

3. Initiated and is financing at the University of Pittsburgh School of Medicine a study of the metabolism of cations, anions, and of nitrogen in muscular dystrophy. This is being conducted by Dr. T. S. Danowski, professor of research.

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4. Initiated and is financing at the University of Rochester School of Medicine two studies: (a) Histochemistry of dystrophic muscle in man and laboratory animals and (b) Histopathology of nutritional muscular dystrophy in the cotton rat and hamster. These are under the direction of Dr. Karl E. Mason, professor of anatomy.

5. Made a grant to Dr. Albert Szent-Gyorgyi, Nobel prize winner for his work in muscle research, at the Institute for Muscle Research, Woods Hole, Mass. This grant is on a nonspecific basis to enable Dr. Szent-Gyorgyi to enlarge the basic muscle research he is conducting.

To support these projects and accelerate vitally needed further research, the Muscular Dystrophy Associations of America are currently (commencing December 1) conducting a Nation-wide public appeal for a minimum research fund of $750,000.

Mr. FREELUND. It is estimated that there are approximately 100,000 victims in this disease in the United States; others, among these being the United States Public Health Service and the Metropolitan Life Insurance Co., estimate the number at 200,000.

Until the formation of this association there was indeed a bleak outlook for the victims and their parents, for not alone was the cause of the disease unknown, and not alone was there no effective treatment known—there also was very little, if anything, being done about it.

Today the victims of muscular dystrophy throughout the land have real reason to be hopeful, for with funds supplied by this association, there are now nine separate research projects under way looking toward the finding of the cause and an effective treatment for this appalling disease. This research work is being carried on at the following institutions in the United States:

The New York Hospital-Cornell Medical Center, New York, N. Y.; University of Pittsburgh, Pittsburgh, Pa.; University of Rochester, Rochester, N. Y.; Institute for Muscle Research, Woods Hole, Mass.; Duke University, Durham, N. C.; Alabama Polytechnic Institute, Auburn, Ala.; and State University of Iowa.

In addition to the foregoing there are now applications under consideration by the association from other institutions, and requests have been received from approximately 15 other investigators who are now preparing applications which are expected to be submitted to this association very soon.

The existing research program of this association, taking into account only those programs now actually being supported, will require an outlay of approximately $175,000 during the year 1952. If the other research programs are found worthy of support and are approved, it is estimated that an additional $325,000 would be required to support the work. This is beyond the financial capabilities of this association to support.

It would be a tragedy indeed if funds could not be supplied to provide the research in which, at long last, interest has been stimulated, for the disease is one which can succumb to an intensive research attack. We know that muscular dystrophy can be produced experimentaly in rabbits by the deprivation of vitamin E, and we know that these rabbits can be restored to perfect health by the restoration of vitamin E to their diets. Unfortunately, some metabolic process that occurs in the rabbit does not occur in the human being, but we are hard at work on that aspect of the problem and in the course of efforts to provide a form of vitamin E that would be assimilable by the human being, we have come upon some form of it which has shown some

beneficial results, and we are looking to expand that phase of the work.

In the considered opinion of medical men who are traditionally most conservative, muscular dystrophy seems to be the type of disease which can be conquered given enough research brains and enough funds. It would be indeed a glorious victory if muscular dystrophy could take its place on the list of those dread diseases which no longer afflict humanity, and which remain nothing more today than a horrible memory.

It is for this reason that I most respectfully urge the adoption of the budget of $10,700,000 for the support of the National Institutes of Neurology and Blindness of the National Institutes of Health, which embrace muscular dystrophy.

Thank you, gentlemen.

Mr. FOGARTY. Muscular dystrophy is a disease which has just recently come to the attention of the public?

Mr. FREELUND. That is true, sir.

Mr. FOGARTY. I don't think I ever heard of it until the last couple of years through some of your television programs that I have seen of young boys, especially, that have been afflicted with it. It is through such advertising publicity as that that it is coming to the attention of the people at the present time. No one knows the cause and there is no treatment for it?

Mr. FREELUND. That is right, sir.

Mr. FOGARTY. Unless something is done in a research way, we will never know the cause and never be able to help in any way?

Mr. FREELUND. That is right.

Mr. FOGARTY. There is no relief for this disease?

Mr. FREELUND. None whatever. It it relentless. It is inexorable in its course. I think that this is a case where you might almost liken it to a race against death in a relay race, if you will. I think the parents and the victims who have formed this association and have carried the work on thus far have really run truly and well the first lap of this relay race, and they are handing the baton over now.

We have started this thing going. We have created proper coherence, and more important than that, we have created an interest in the minds of medical scientists and investigators. We have stimulated them to want to do research.

That is a thing to have done really and we look for quite a lot of research if the funds can be provided, which I am sure is true of most every disease, but speaking in behalf of the victims of muscular distrophy I do wish to emphasize that it is a situation where you have a disease which can be conquered.

Muscle tissue perhaps alone among the tissues in the body is capable of regeneration, unlike some of the other tissues in the body, and if the muscle is not too badly gone, if not too far destroyed, there is every reason to believe that many of these victims, if not most of them, can be restored to some useful life, to almost normal activity, so that the hope that we hold out for these victims is a very real one and one which is capable of realization, and funds to support the work should be forthcoming.

Mr. DENTON. There was a picture in the papers of four boys that were dying, all brothers. Do they have this?

Mr. FREELUND. Yes, sir, but we have been able to keep them alive.

Mr. FOGARTY. Mr. Freelund, just what is muscular dystrophy?

Mr. FREELUND. Of course, I don't speak as a physician, but it is a progressive degenerative disease of the muscle tissue, and which through the course of the disease in place of the normal muscle tissue there is a deposition of fatty tissue. The muscle tissue under the microscope, which normally, if it is healthy muscle, has the appearance of a good healthy pinkish color, dystrophic muscle appears white under the microscope, almost white. It has lost its character.

Mr. SCHWABE. The muscle becomes atrophied?

Mr. FREELUND. Not in all cases, sir; in some forms of the disease it does; in other forms of the disease a child with muscular dystrophy will appear to be very strong. His muscular development will seem to be very good. His calves will be very heavy, but that isn't muscle, that is fat.

Mr. FOGARTY. Is it anything similar to multiple sclerosis?

Mr. FREELUND. No, it might be termed "a related disease," but it is not the same, because I think that multiple sclerosis is properly classified as a true neurological disease while muscular dystrophy is not.

Mr. FOGARTY. Any questions?

Thank you, very much, Mr. Freelund.

JOY TALLEY, PRESIDENT, NATIONAL REHABILITATION ASSOCIATION

Mr. Talley, you are president of the National Rehabilitation Association?

Mr. TALLEY. That is right.

Mr. FOGARTY. If you want to you can present a prepared statement for the committee and we will have it put into the record at this point, and you may cover the high lights of your statement, Mr. Talley.

Mr. TALLEY. I would like for you to have a copy of what I have, but I would prefer to read my statement.

Mr. FOGARTY. All right, you go right ahead, then.

Mr. TALLEY. I am a director of vocational rehabilitation in the State of Missouri, and the president of the National Rehabilitation Association. We are supporting appropriation requests for vocational rehabilitation and for the National Institutes of Health.

While most of my statement will be concerned with vocational rehabilitation, I want the committee to know that we consider vocational rehabilitation and the National Institutes as companion programs with the same general objectives. Particularly, do we hope that the two new institutes will be given new money to undertake a comprehensive program. We are in hearty accord with requests for the $10,700,000 for the Institute on Neurology and Blindness where research and rehabilitation will be centered.

We are asking Congress to appropriate for vocational rehabilitation this year more money than it has ever appropriated before, more, in fact, than the President has ever recommended for this purpose. We do this with full consciousness that this is supposed to be an economy year, and that some of the Members of Congress may be reluctant to approve any requests for increases over the budget figures. We do not hesitate to ask you for more money because we have faith in the people we serve and in ourselves to do well what you decide you want us to do.

We know that in these trying times the handicapped can do far more for their country than we shall ask you to do for them.

We believe it reasonable that you should want to know from me what we have done with the tools you have already given us, what remains to be done, what we will do, if you grant our request for additional funds, how the States are meeting their share of the responsibility, and some of the problems the States face with inadequate Federal funds.

What have we already done? Although the State-Federal program of rehabilitation has been in existence since 1920, I shall review briefly a 10-year period beginning in 1940. In that year with total expenditures of $2,000,000 in Federal funds, 11,890 persons were rehabilitated. In 1950 with $20,310,000, 59,500 were rehabilitated. In 1951 with approximately $21,000,000 in Federal funds, the number of rehabilitations had increased to 66,000. So you see that increased funds have resulted in proportionally greater rehabilitations. More significant is the fact that a steadily improved job is being done and that a proportionally higher percentage of the most severely handicapped are being served. For instance, the 66,000 persons rehabilitated in 1951 included 3,614 blind, 5,200 deaf and hard of hearing, 7,500 amputees, 5,000 tuberculous, 4,000 mentally impaired, and 21,000 orthopedically impaired, which include the polio, cerebral palsied, paraplegic, et cetera.

Increased funds will result in ever greater numbers of the more severely handicapped being served.

What remains to be done? You know already that the most reliable estimates of the number of handicapped who could be and should be rehabilitated is over 2,000,000, and that approximately 250,000 are being added to this number annually. We cannot, of course, vouch for the complete accuracy of these estimates, but we do know this for sure: That there are many times more than the State agencies are now able to serve. The backlog of cases on agency rolls is enough proof of this, and, we might add, every intense study of a local area that we know about indicates that the estimates referred to above are too conservative. For those of us who work in the field, the question of how many handicapped is mostly an academic one.

What will we do if you allow us to forge ahead? First, let me say that the figure of $23,000,000 in the President's budget is just a hold-the-line figure and may not even do that. It is an increase of slightly less than 7 percent over the 1952 appropriation, and the entire increase will be used up in increased costs. It is certainly a fallacy to assume that this small increase in Federal funds will permit any noticeable increase in the number of severely handicapped that can be served.

We are asking for $30,000,000 in 1952 which, in round numbers, is what State budgets submitted nearly a year ago indicated would be required. We do not pretend that this is enough to do the job that is needed. This is, however, the amount that the States are in a position to use wisely, and an amount that State funds will justify. With this amount we expect to increase our rehabilitations to about 85,000, at the same time serving an increased percentage of more severely handicapped who require more in staff time and case service costs.

We believe that about $125,000,000 annually in State and Federal funds will be needed to rehabilitate the annual increment of 250,000 handicapped. This goal will have to be approached gradually, however, since trained personnel and physical facilities are far short of what is needed for so comprehensive a job.

The expenditure of this latter sum can be easily justified on three counts: As a manpower measure which would add to effective manpower the equivalent of 15 infantry divisions annually; as a financial measure which would hold down public-assistance costs and at the same time increase earning power and tax paying ability; and as a demonstration to the world of American democracy at work.

In this connection, it is interesting and important to note that the Task Force on the Handicapped in its report to the Office of Defense Mobilization has urged Congress to meet its full obligation to the States under Public Law 113 and has recommended a supplemental appropriation for 1952 sufficient to match all State funds that are available.

I know that at various times in the past, Members of Congress have been concerned with the amount of money the States are putting into rehabilitation. In this connection let me say first, that we all regret that some State legislatures have not yet seen the full significance of rehabilitation, although in a majority of the States rapid progress is being made, as a tabulation of State appropriations over the year will show. I am sure that Congress does not feel that the failure of certain States to support the program as they should is justification for Congress to do less than its own share under the law. If the States didn't put up any money, there wouldn't be any program. The States are not expected to match Federal funds, the Federal Government is obligated to match State funds. We are simply asking Congress to meet its obligations under Public Law 113.

Experience has demonstrated that a 70-percent Federal contribution is needed if the Federal Government is going to reimburse 100 percent of necessary administration, guidance, and placement costs and 50 percent of case service costs, and this is the ratio upon which our request for $30,000,000 is based.

Budget officials do not like this method of financing, and have been trying to change it by recommending amounts which arbitrarily reduce the Federal share and which they know are not sufficient to carry out the intent of the law. For instance, this year the budget breakdown shows 11.1 million for matching case services in the States, when they know that approximately 12.9 million will be available in the States for this purpose. Again, let me say that we are asking Congress to meet its obligations under Public Law 113, and we firmly believe that Congress is ready to accept this responsibility.

We realize that some Congressmen feel that any amount of money appropriated by Congress should be distributed by OVR, that the State programs should be adjusted accordingly, and that everyone should be happy. This program just cannot operate effectively on such a basis. It can't be compared, for instance, with the hospital-construction program under which a certain sum is available to a State if it puts up a certain amount. It simply puts up its share and gets the hospital, or, does not put it up and does not get the Federal grant. There is a lot of difference in whether the State is matching Federal funds, or the Federal Government is matching State funds.

Actually State support of vocational rehabilitation is far greater than is revealed by State appropriations directly for this purpose. To illustrate, in Louisiana, the services of the State hospitals are available to rehabilitation agencies without cost. Tennessee, Arkansas, and Mississippi agencies secure annually without cost from the Hospital for Crippled Adults in Memphis services that would cost $100,000 if purchased elsewhere. The institution is supported by Rotarians of the three States with medical services donated by the famous Campbell's Clinic. North Carolina rehabilitation clients pay no tuition in State-supported training institutions. In Maryland a State-supported medical-care program cuts down on physical restoration costs. Voluntary organizations such as the tuberculosis societies, infantile paralysis foundations, and crippled children and adult groups make contributions that would total millions. Rehabilitation counselors have learned to utilize to the utmost available community resources. If the whole story could be told, it would be found that the States are paying a far higher percentage of rehabilitation costs than the bare figures of appropriations indicate. So far, it has not been practical to get complete and accurate figures on this part of the States' contribution.

The difficulties in administering the State-Federal rehabilitation program under conditions of inadequate financing such as we have this year makes an almost impossible situation. In the first place, OVR is forced to promulgate unrealistic formulas to determine how much a State needs for guidance and placement services. Forecasts of Federal funds are made which provide neither sufficient funds for guidance and placement nor for matching case services. State protest and OVR cannot honestly defend its own forecasts on any other ground than that "We did the best we could with what we had." Everybody is unhappy.

I wish you gentlemen could put yourselves in the position of a State administrator under such conditions. Other State employees are getting a salary raise, but his staff cannot because funds are not available. His budget officials can read a law as well as he can. Such officials know that the Federal Government is supposed to reimburse 100 percent of salary items. Why should he recommend that the State take over a Federal obligation. State case service money is about to revert to the treasury in the face of thousands of handicapped people waiting for service. Can he spend it unmatched? No, it can be spent only in accordance with the Federal law. How can he plan with his board and budget officials when he doesn't know what to expect from the Federal Government? Ever increasing thousands of handicapped persons are applying for service. Must he instruct his staff to tell applicants that they may be able to serve them in a year or two?

While I would not mind having one of you put yourselves in the position of the Director of OVR or a State administrator under such conditions, I certainly hope that none of you, your families, or your friends ever has to take his place in the long line of those who want to take their rightful place as wage earning, taxpaying members of society, but who cannot because they are denied the opportunity they need. To me the human values of rehabilitation far transcend the economic, important as they may be.

Another factor I want to call to your attention: In 1950 Congress amended the Social Security Act and established a fourth category of public assistance for the totally and permanently disabled. In the report of the conference committee attention was called to the fact that although labeled totally and permanently disabled, many of these people could, in fact, be rehabilitated and urged close cooperation between public assistance and rehabilitation agencies toward that end. The budget for 1953 calls for $54,158,000 as the Federal share of the cost of this category, a sum, you will notice, over twice as much as that recommended for vocational rehabilitation.

We now find ourselves in this unique position. Congress accepts responsibility to match without limit State expenditures under the law to provide public assistance for the handicapped, but at the same time does not appropriate enough to match State funds for rehabilitation. This situation is being interpreted to mean that the Federal Government is encouraging relief over rehabilitation. Such, of course, was not the intent of Congress; but it is the result of present budget policy. It is freely acknowledged by both public-assistance and rehabilitation authorities that many handicapped persons are being put on public assistance rolls who could be rehabilitated if funds were available for this purpose. A high percentage of blind on public-assistance rolls could also be rehabilitated. Studies have shown that at least one-fourth of the families drawing aid to dependent children are doing so because of the physical disability of one or both parents.

Although rehabilitation can and is removing many persons in these various categories from the public assistance rolls, its most important contribution can be made by keeping such people from ever getting on the relief rolls. To meet this responsibility, rehabilitation agencies must be adequately staffed and have funds sufficient to serve the handicapped when the need first appears. It is much easier to keep a person off relief than it is to get him off after he gets used to the "security" of a regular assistance check.

To do this job right rehabilitation agencies will have to have a lot more money than they have ever had before. But every dollar they spend on the handicapped will be returned manyfold not only in public assistance savings and tax payments, but also in useful citizenship.

Mr. FOGARTY. Thank you very much, Mr. Talley. As you know, Miss Switzer, who is in charge of this program on the Federal level, has already appeared before the committee and testified as to the budget that was recommended by the Bureau of the Budget to this committee, which is an increase of a million and a half dollars over what they had in 1952. It is true there has been an authorization of a greater amount.

Mr. MCGRATH. It was just an authorization, not an appropriation.

Mr. FOGARTY. That is right; it authorizes the appropriation. But all that is in the budget, as you know, is $23 million this year, which is an increase of a million and a half dollars over what they have available in 1952.

I think you know from experience, Mr. Talley, this committee has always been very sympathetic to this program. Miss Switzer's predecessor, Mike Shortly, always made a claim in previous years that we got back about $10 for every Federal dollar that we appropriated because of rehabilitating these people. I have been one of the best supporters. I think that is one of the best Federal programs that we

have at the present time, but I think you have to see our point of view, too. We have many programs in this bill like heart and cancer and mental health and all of these other killing diseases of humanity that some of us feel more money should be appropriated for to save people from dying an untimely death, but it is almost impossible these days to go over the budget figures.

We have tried it before, as you know, and we have seldom been able to carry it on the House floor even though this committee has supported it, so that is the thing that we find ourselves up against in appropriating these funds. I want you to know that this committee has always been sympathetic, as I think you do know, to this program.

Mr. TALLEY. That is true, and I know it.

Mr. FOGARTY. Any questions? Mr. Schwabe.

Mr. SCHWABE. I want to suggest, in light of what the chairman said, that we will of course give this matter due consideration, as well as all other matters.

Mr. FOGARTY. Thank you, very much, Mr. Talley.

Dr. Traeger, you have been before this committee before. You are the medical director of the Multiple Sclerosis Society?

Dr. TRAEGER. Yes, sir.

Mr. FOGARTY. Will you give the committee some of your other background?

STATEMENT OF CORNELIUS TRAEGER

Dr. TRAEGER. I am a member, fellow of the American College of Physicians, fellow of the New York Academy of Medicine, New York Academy of Science, and American Academy of Neurology, attending physician at Roosevelt Hospital and the Hospital for Special Surgery.

Don't be alarmed by all of this material because this is all moral support, but I have some material which I would like to introduce into the record and which I will turn over to you at the close of my testimony.

Of course, I am thoroughly conversant with your problems, having been here before. I know that we are in a state of world unrest and that we are committed to an enormous defense budget and that many demands are made upon us from all sources.

I also know that the life expectancy of the United States today is the highest in the world and that medical standards and techniques of research are also the best in the world, and I also know, as you do, that the President's budget for 1953 for all the National Institutes of Health is in excess of $53 million.

What am I here for? Well, I am supposed to talk about multiple sclerosis and I will in a little bit, but I would like to talk about all the neurological diseases. These have been the neglected and forgotten ills of mankind.

Among the chronic and infectious diseases the number of individuals dying from neurological and sensory disorders ranks next to that of cancer. The number of those presently affected by neurological and sensory disorders of grave or less serious importance may be estimated at 20 million. For most of these diseases the causes are unknown and there is no specific treatment.

Some of the crippling chronic neurological and sensory disorders—and I won't read the figures—are epilepsy, cerebral palsy, Parkinson's disease, multiple sclerosis, muscular dystrophy, blindness, deafness,

chronic infectious neurological diseases, neuro syphilis, brain, spinal cord, peripheral nerve tumors, accidents and injuries to the brain, spinal-cord nerves. These are some of them.

Then the less serious neurological diseases which are common and cause greater economic loss are the various forms of neuralgia, neuritis, Bell's palsey, simple shingles, migraine and chronic headache from a variety of causes. There is no way of even approximating the number of people who suffer from those diseases.

I am here to speak for justice and equity and a fair share for these millions of people who suffered from these diseases. I have some figures which I will submit to you which deal with moneys from Government support and from the public in the fields of cancer and tumors, microbiology, heart, mental health, chronic neurological diseases, blindness and arteries and metabolic diseases. Boiling it all down, we find the absurd figure that the country spend $143 for each cancer victim a year, $5 each per heart victim, and 45 cents each for all the victims of neurological and blinding and deafening diseases.

Of course, these data do not include the money spend by the Armed Forces, Veterans' Administration, or State or local agencies.

At this point I would like to interject a thought. The previous speakers spoke in terms of vocational rehabilitation. Vocational rehabilitation begins after medical rehabilitation finishes. You can't teach a man a new job, a new way to make a living until you have restored some of his health.

The problem of rehabilitation within this disease category is an enormous one, and for which there is practically no money. Now what is responsible for the neglect of these neurological and sensory diseases? In the first place, they don't inspire the immediate fear of death, as does cancer. They are not contagious like tuberculosis or venereal diseases or influenza is, except in rare instances of encephalitis. The general public is not educated up to the problems of the neurological diseases.

You say multiple sclerosis, and they say what is it? They never heard of it.

The public knows all about cancer and heart, venereal disease, tuberculosis, and arteries, but they don't know about muscular distrophy, multiple sclerosis, Parkinson's disease. There has always been an aura of mystery about the brain and spinal cord, and its diseases which has operated to relegate investigation of disorders such these beyond the pale.

Neurology in the past has been described as a science which tries to diagnose diseases for which nothing can be done.

Another difficult problem posed by these diseases is that the nervous system, the brain and spinal cord are inclosed within a rigid bony inclosure, the skull and vertebral column which makes it difficult to exposure, and often hazardous and also—this is terribly important, gentlemen—nerve tissue, whether it is brain or spinal cord or peripheral nerves once damaged never recover. These nervous tissues do not regenerate themselves. Therefore, the results of neurological injuries are permanent disabilities.

Many of these neurological disorders have been surrounded by an aura of shame, guilt, embarrassment, or even a heriditary taint. The patient with epilepsy or palsy or paralysis or multiple sclerosis tries to conceal or minimize the external manifestations of their diseases.

The relatives of the celebral palsy patient are silent about their afflicted child. These sufferers will not plead their own cause of ask others to speak for them. It is for these reasons that only a very small part of the funds available for scientific research has been given to the investigation of these disorders.

It is for these reasons that only about 20 of the country's 80 medical schools has complete facilities for research and teaching in the fields of neurology. It is for these reasons that there are only 150 available positions in the entire United States for the training of neurologists to handle a case load of 20 million.

This same situation obtains in the blinding eye diseases and in deafness. But in spite of all these discouragements, much has been done. Medical research is a sort of holy cause of devoted and dedicated people who try to uncover the truth of nature's mysteries.

We have been successful in other fields.

Pernicious anemia, when I was a medical student, was a 100-percent fatal disease. Everybody died of it. Typhoid, pneumonia, gonorrhea, syphilis, meningitis are all within very wide limits curable. The miracle of cortisone, ACTH, you have heard about. I have private information that when—within a very few days perhaps a cure for tuberculosis will be announced to the scientific world.

The miracles of surgery of the heart are well known; and we have also made advances in the neurological field, shock treatment for many of the problems, precision diagnosis instruments, like the electroencephalograph, the control of epilepsy by anticonvulsive drugs, great advances in brain and nerve surgery for the elimination of pain, the ability to transplant the cornea of one eye to a blind eye, perfection of operations for deafness, and the perfection of electrical hearing aids are all well known.

Much is known about these diseases, but so much more remains unknown, and desperately needs to be discovered. Well, how can you help? Let's look at the structure of any of these national institutes or our institute, neurological disease and blindness.

Its functions are to provide funds for research fellowships, teaching, training, State grants, special controls, construction grants, the direct operations, and on the direct operations we mean intramural research at Bethesda, administrative staff salaries, review and approval of research grants, expenses of the advisory councils and visiting scientists, transportation for them, and so forth.

In 1925 there was $1,015,000 devoted for research, $51,000 for fellowships, nothing for teaching, $36,000 for training, nothing for State grants, nothing for direct operations, nothing for construction, $66,000 for intramural research, and $20,000 for approval and review of research grants.

And under fellowships and teaching and training we have all the diseases of neurology and blindness and deafness and the problems of medical rehabilitation, not vocational rehabilitation, but medical rehabilitation. The President's budget for 1953 is exactly the same except that for intramural research the figure has been raised from $66,000 to $137,000.

These funds in comparison to those allocated to the entire structure of the National Institutes of Health are woefully inadequate and represent 2.7 percent of the total President's budget for 1953.

Voluntary agencies and foundations have by research and survey and by writing letters to men in the field—and I have done some of it myself—come up with the budget which you have heard several times, $15,700,000. If you subtract from that budget the $5,000,000 for construction facilities, that budget remains at $10,700,000. What is the present financial status of the neurological and blindness institute? The advisory council, of which I am a member, reached this opinion Sunday.

To review granting applications to the amount of $544,000, which have already been reviewed by the study section, about 50 percent of those applications for research have already been approved, by the study section.

If the council approves the vote of the study section, our institute is broke as of next Monday, no money. We have another meeting in June which ends fiscal 1952. On the basis of the way the projects are coming in now, by the end of fiscal 1953 this budget, we will be unable to pay over $3,000,000 worth of approved projects, which have been approved by study sections and by the council. In other words, we stop operating. We exist only in name.

This applies of course only for research. It is not even taking into consideration teaching, training, rehabilitation, State grants, controls. It is a deplorable situation. It is really sad.

Well, they tell us, "You are a new institute, that we ought to be satisfied." Well, what are the facts? Before the Heart Institute was founded, there were Government funds to the amount of $1,600,000 for research in cardiac disease. The budget the first year of the Heart Institute was $2,800,000, second year $3,000,000, and the third year $10,000,000. The same is true in arthritis. Government funds were available to the amount of $1,470,000. In 1952 the budget was set at $2,400,000, and the 1953 budget is $3,300,000. We are operating at $1,260,000 for diseases which terrify 20 million people.

Our institute was established by law in August 1950. We did not have an appropriation until a year later in September 1951. Our directors have done a magnificent job in the short time of the incumbency, but the program is so urgent we will be bankrupt and bogged down under the present financial set-up.

What is the rush? What is the urgency? Gentlemen, I am 56 years old. In 1927 I had tuberculosis. Last year I had my first attack of coronary disease, and if you look at an X-ray of my spine, you will find almost a terrifying osteoarthritis, but here I am punching, and I hope to be, if you fellows will make it easy for me.

Those diseases need not and do not necessarily destroy a man's efficiency, but if I had epilepsy I wouldn't even be here, I wouldn't even have this job, or any job. If I had multiple sclerosis, I wouldn't be here. I doubt if I could come before you with the palsy or chronic encephalitis.

If I were a hemiplegic, I might be here, but somebody would be pushing me in a wheelchair. If I were blind, I might be here, but somebody would have to lead me, and if I were deaf I wouldn't be here at all.

The epileptic, the multiple-sclerosis patient, the cerebral-palsy patient, the palsy, they can't travel, they can't go to the movies, they are loath to marry and raise families. They don't like to appear in public. The deaf do not hear the voices of their loved ones, and the blind can't see the beauties of the world and the faces of their friends and families.

Gentlemen, I know everybody is picking on you for a little bit more of the budget dollar. All I can hope to accomplish by being here and talking to you is to perhaps give you a little more of the awareness of the vast history, of the tremendous economic loss, which I haven't even talked about, of the tremendous defection from the potential ranks of defense workers that these 20 million people represent.

There is a person in a high place in our Government who is efficient only 20 percent of the time because of migraine. It is a great problem. There it is, 20 million people, $1,260,000, no teaching, no State grants-in-aid, no rehabilitation, and next Monday, gentlemen, we are broke. Thank you.

Mr. FOGARTY. Thank you, Dr. Traeger. The documents you have submitted will be incorporated in the record.

(The documents referred to are as follows:)

National Institute of Neurology and Blindness

Description	1952 current budget	1953 Budget Bureau estimate	1953 voluntary agencies' recommended budget
GRANTS			
1. Grants to medical schools and other institutions and to individuals for research and training:			
(a) Research projects	$1,015,000	$1,015,000	
Blinding eye diseases			[1] $1,250,000
Neurological diseases, including cerebral palsy, multiple sclerosis, epilepsy, Parkinson's disease and others			[2] 2,250,000
(b) Research fellowships	51,400	51,400	
Neurology			360,000
Blinding eye diseases			[3] 360,000
Rehabilitation			180,000
(c) Teaching of medical subjects	0	0	
Neurology			[4] 1,000,000
Blinding eye diseases			[5] 500,000
Rehabilitation			500,000
(d) Training stipends	36,000	36,000	
Neurology			100,000
Blinding eye diseases			[3] 100,000
Rehabilitation			100,000
2. Research projects in control and rehabilitation methods	0	0	375,000
3. Grants to States	0	0	2,000,000
4. Construction of research facilities	0	0	[6] 5,000,000
DIRECT OPERATIONS			
1. Research	66,650	137,800	1,550,000
2. Review and approval of research and training grants	20,530	20,530	75,000
[1]Total	1,189,580	1,260,730	15,700,000
Construction of research facilities	0	0	−5,000,000
Total obligational cash	1,189,580	1,260,730	10,700,000

[1] This amount of $1,250,000 is based on the results of a sampling survey made by the National Council to Combat Blindness, in which 18 institutions requested $346,980. It is estimated that when additional institutions interested in this field are heard from, $1,250,000 minimum would be needed. (See exhibit B attached.)

[2] This figure of $2,250,000 is based on estimates as a result of a survey made by Dr. Cornelius H. Traeger, medical director of the National Multiple Sclerosis Society, which resulted in requests totaling $1,781,532. As these requests have come from a limited number of institutions, $2,250,000 represents a modest sum. (See exhibit C attached.)

[3] The figures totaling $460,000 for research fellowships and training stipends in blinding eye diseases are modest amounts as the National Council To Combat Blindness alone has received requests totaling $955,100. (See exhibit B attached.)

[4] At a survey made by the National Institute of Neurology and Blindness, a total of 36 teaching institutions have requested $1,043,000 from the institute for the teaching of neurological subjects. (See exhibit G attached.)

[5] An estimate of requests amounting to $220,000 for the teaching of medical subjects has come from 18 institutions to the National Council To Combat Blindness. If the 72 approved medical schools in the United States are taken into account, a minimum of $500,000 would be required at once to improve teaching in blinding eye diseases. (See exhibit B attached.

[6] No funds at present are estimated for construction needs in neurological research, but in blindness research the National Council To Combat Blindness in their survey has received requests in the amount of $4,968,000 from 22 institutions, for there is great need of more adequate research facilities in blinding eye diseases. (See exhibit B attached.)

EXHIBIT B

PARTIAL RESULTS OF A SURVEY CONDUCTED BY THE NATIONAL COUNCIL TO COMBAT BLINDNESS

On August 24, 1951, a questionnaire was directed to 122 medical colleges and eye centers in our Nation. As of November 2, 49 replies were received. The following is the result of this quick survey and represents in a small part only the current needs for research support in ophthalmology. In prefacing the listing to follow we should like to point out that in question 2 relative to facilities, in several instances the amounts requested represent an initial cost and would not necesarily be required in the same amounts in subsequent years. In some instances requests were submitted encompassing a 3- to 5-year period. Here we broke these amounts down on the need based on a single year's operation.

The questionnaire requested the following information, and the following answers have been received:

1. Concerning any information that you have as to people associated with your department or available to your department who want to do straight research, how much money would be needed to finance their particular projects?

Wills Eye Hospital, Philadelphia	$1,180
Stanford University School of Medicine, San Francisco	20,000
State University of Iowa College of Medicine, Iowa City, Iowa	35,000
Gill Memorial Eye, Ear, and Throat Hospital, Roanoke, Va	5,000
Tulane University School of Medicine, New Orleans	80,400
University of Rochester School of Medicine, Rochester, N. Y	1,000
University Hospitals of Cleveland, Cleveland	36,000
Jefferson Hospital, Philadelphia	6,700
Indiana University School of Medicine, Indianapolis	35,000
University of Texas School of Medicine, Galveston	5,400
Northwestern University Medical School, Chicago	12,000
Presbyterian Hospital, Eye Institute, New York City	15,000
Wayne County General Hospital, Eloise, Mich	5,000
Eye Bank for Sight Restoration, Manhattan Eye, Ear, Nose, and Throat Hostital	10,000
University of California Medical School, ($16,000 a year for 3 years)	16,000
University of Oregon Medical School, Portland	30,000
Masachusetts Eye and Ear Infirmary, Boston	100,000
University of Pennsylvania School of Medicine, Philadelphia	12,000
Total, straight research	346,980

2. Are your facilities presently available adequate to carry out a good research program, referring to buildings, room equipment, etc.? If not, how can you implement these facilities in the way of additional rooms, buildings, equipment, etc.? How much do you estimate this would cost?

Wills Eye Hospital, Philadelphia	$10,000
Stanford University School of Medicine, San Francisco	100,000
State University of Iowa College of Medicine, Iowa City (without new building)	50,000
Gill Memorial Eye, Ear, and Throat Hospital, Roanoke, Va	10,000
St. Mary's Hospital, Rochester, N. Y	100,000
Yale University School of Medicine, New Haven, Conn	1,500
Chicago Medical School, Chicago	6,000
Bowman Gray School of Medicine, Winston-Salem, N. C	1,800
Tulane University School of Medicine, New Orleans	243,000
University of Illinois College of Medicine, Chicago	20,000
Michael Reese Hospital, Chicago	5,000
University Hospitals of Cleveland, Cleveland	71,000
Jefferson Hospital, Philadelphia	50,000
Indiana University School of Medicine, Indianapolis	15,000
Northwestern University Medical School, Chicago	4,000,000
Presbyterian Hospital, Eye Institute, New York City	10,000
Wayne County General Hospital, Eloise, Mich	15,000
Presbyterian Hospital, Chicago	20,000
Grace Hospital, Detroit	10,000
Fresno County General Hospital, Fresno, Calif	15,000
University of Oregon Medical School, Portland	15,000
Massachusetts Eye and Ear Infirmary, Boston	200,000
Total facilities (buildings and equipment)	4,968,000

EXHIBIT B—Continued

3. Is your institution equipped to carry out an advanced training program, including research fellowships, trainees, etc., if such were available and the finances available; that is, how many ophthalmologists do you feel that you could give advance training or research facilities, and how much do you estimate that would cost?

Wills Eye Hospital, Philadelphia	$3,600
Stanford University School of Medicine, San Francisco	500,000
State University of Iowa College of Medicine, Iowa City	20,000
Gill Memorial Eye, Ear, and Throat Hospital, Roanoke, Va	5,000
St. Mary's Hospital, Rochester, N. Y	8,000
Duke University Hospital, Durham, N. C	5,000
University of Kansas Medical Center, Kansas City, Kans	8,000
Bowman Gray School of Medicine, Winston-Salem, N. C	4,000
Tulane University School of Medicine, New Orleans	71,000
University of Rochester School of Medicine, Rochester, N. Y	2,500
University of Illinois College of Medicine, Chicago	10,000
Michael Reese Hospital, Chicago	30,000
University Hospitals of Cleveland, Cleveland	32,000
Jefferson Hospital, Philadelphia	15,000
Indiana University School of Medicine, Indianapolis	15,000
University of Texas School of Medicine, Galveston	10,000
Northwestern University Medical School, Chicago	40,000
Presbyterian Hospital, Eye Institute, New York City (salaries)	101,000
Wayne County General Hospital, Eloise, Mich	5,000
Eye Bank for Sight Restoration, Manhattan Eye, Ear, Nose, and Throat Hospital	30,000
Presbyterian Hospital, Chicago	3,000
Grace Hospital, Detroit	3,000
University of California Medical School	14,000
Massachusetts Eye and Ear Infirmary, Boston	15,000
University of Pennsylvania School of Medicine, Philadelphia	5,000
Total, training program	995,100

4. What do you estimate would be necessary to improve your teaching program on an undergraduate level in order to interest more students in ophthalmology during their formative years? Again, estimate cost of this program.

Wills Eye Hospital, Philadelphia	$10,000
State University of Iowa College of Medicine, Iowa City	16,000
Gill Memorial Eye, Ear and Throat Hospital, Roanoke, Va	7,000
St. Mary's Hospital, Rochester, N. Y	50,000
Yale University School of Medicine, New Haven, Conn. (more equipment needed; cost not stated)	
Chicago Medical School, Chicago	5,000
University of Kansas Medical Center, Kansas City, Kans	5,000
Tulane University School of Medicine, New Orleans	6,000
Harlem Eye and Ear Hospital, New York City	1,000
University of Rochester School of Medicine, Rochester, N. Y	1,500
University Hospitals of Cleveland, Cleveland	15,500
Jefferson Hospital, Philadelphia	20,000
Indiana University School of Medicine, Indianapolis	65,500
Milwaukee County General Hospital, Wauvatos, Wis	1,000
Eye Bank for Sight Restoration, Manhattan Eye, Ear, Nose and Throat Hospital	5,000
Presbyterian Hospital, Chicago	1,000
University of California Medical School	1,000
Massachusetts Eye and Ear Infirmary, Boston	10,000
Total, teaching program on undergraduate level	220,500

Grand total, $6,490,580.

The National Council To Combat Blindness wishes to point out that while the specific opthalmic studies which would be undertaken have not been included in the foregoing, the following represent the problems in ophthalmology which require investigation, according to authorities in the field. Further, authorities

have estimated that with adequately financed and properly conducted research, from 50 to 70 percent of blindness could be prevented:

Glaucoma—eitology unknown to science in 95 percent of cases
Uveitis (including iritis, iridocyclitis, and choroiditis)
Cataracts—eitology unknown in approximately 70 percent of cases
Detached retina
Congenital and hereditary conditions (one of the increasingly important research problems is retrolental fibroplasia, attributed to immature development of the vitreous, which has been greatly influenced by advances in saving the lives of premature babies)
Retinal degeneration
Eye injuries
Cancer and tumors of the eye
Optic atrophy
Malignant myopia
Infectious diseases
Diseases of the cornea

FACTS ABOUT MULTIPLE SCLEROSIS

I. What is multiple sclerosis?

Multiple sclerosis, also known as disseminated sclerosis, is one of a rather large group of chronic diseases of the central nervous system. In multiple sclerosis one finds many areas in the brain and spinal cord, scattered indiscriminately throughout the central nervous system, in which myelin (a fatty sheath which in normal healthy individuals covers the nerve fibers) has been dissolved or destroyed.

The process by which this dissolution or destruction is accomplished is not known, but it causes either complete stoppage of these nerve impulses—thus producing paralysis of the parts of the body innervated by these nerves—or the impulses pass through the affected nerves either enfeebled or altered, so that those parts of the body innervated by such nerves perform their functions in a disturbed fashion.

(*a*) Symptoms: Double vision, staggering and inability to keep one's balance, numbness of parts of the body, tremor, nystagmus (involuntary movements of the eyeball), extreme weakness, speech difficulties, emotional disturbances, bladder troubles—these are common first symptoms.

II. How many people die of multiple sclerosis in the United States?

There are at present no available figures as to the number of deaths from multiple sclerosis in the United States. Multiple sclerosis is not a reportable disease and does not appear on morbidity statistics. (It is the actual cause of death in many instances where the cause of death listed is some other disease which has been brought on by multiple sclerosis, such as pneumonia, heart, circulatory failure, and infections) (1) (2).

III. How many people are suffering from multiple sclerosis in the United States?

With the present status of medical knowledge no figure can be given or even estimated with any degree of accuracy as to the number of people suffering from multiple sclerosis in the United States. An estimate would be well over 200,000. It is a disease of extremely difficult early diagnosis, and thousands of cases are thus missed. It is frequently misdiagnosed as hysteria, syphilis, polio, and other neurological diseases (3).

A statistical survey is now being conducted by the National Multiple Sclerosis Society in cooperation with the Federal Security Agency which will determine the incidence of the disease and the effects of climate, race, and geography on multiple sclerosis. This survey has been under way for the past 2 years, and it is hoped that it will be completed and reported on by the end of 1952 (7).

IV. What is being done to help multiple sclerosis sufferers?

Until the advent of the National Multiple Sclerosis Society very little was done to help multiple sclerosis sufferers.

(*a*) No beds are available in private or public hospitals in the United States specifically for multiple sclerosis patients, and they are not admitted into most hospitals because of the chronic nature of multiple sclerosis. A few hospitals for chronic diseases scattered throughout the United States do admit an occasional multiple sclerosis patient.

(*b*) There are not more than eight diagnostic clinics, two in New York; two in Boston, Mass.; one in Detroit, Mich.; one in Los Angeles, Calif.; and one in Winfield, Kans. All of these clinics were formed by and are supported by the National Multiple Sclerosis Society. One clinic in Boston and the Detroit and Los Angeles clinics are financed by the Massachusetts, Michigan and California chapters of the society, respectively (3) (7).

Six of these clinics are for research and diagnosis; the other two are diagnostic, treatment and rehabilitation clinics (3) (7).

V. How much money is being spent for research to find treatments and cures for multiple sclerosis?

About $554,565 was available from 1947 through 1951, divided as follows (see appendix I):

(*a*) Government funds: 1. The United States Public Health Service made available in 1950–51 approximately $140,618 for six research projects.

2. The new research institutes bill (S. 2591) has been passed and the President's budget provides a sum of $1,187,000 as the budget for the newly created National Institute of Health for Neurological Diseases and Blindness. An undetermined part of these funds will be used for research in multiple sclerosis.

The national advisory council to this institute has been appointed by the Surgeon General. This council is now actively engaged in allocating research funds for the entire field of neurological research. The exact amount of such allocations specifically for research in multiple sclerosis will be available in the spring of 1952 (3) (7).

(*b*) Non-Government funds—National Multiple Sclerosis Society: For the period April 1947 through August 31, 1951, the National Multiple Sclerosis Society has spent $340,347 for research in multiple sclerosis, of which $111,104.23 is for the period of September 1, 1950, through August 31, 1951 (3) (7).

(*c*) Other sources: The Kresge Foundation made a grant to Wayne University for research in multiple sclerosis in the amount of $34,500 for 3 years beginning in May 1947, and a further grant of $48,600 was made in September 1950 for an additional 3 years, of which $16,200 was for the year 1950–51 (7).

A grant of $25,000 was made by the Multiple Sclerosis Foundation of Chicago to the Northwestern University for research in multiple sclerosis in 1951 (7).

VI. How does this compare with what we spend on other research?

In contrast with the total of about $554,565 being spent from 1947 through 1951 for research in the field of multiple sclerosis:

(*a*) In 1951 $73,295,897 was spent by the Department of Agriculture for research in control and cure of plant and animal diseases. This includes $40,566,197 actual expenditure in 1950 for the eradication of foot-and-mouth disease alone (4).

(*b*) For applied and developmental research (nonmedical), excluding atomic energy (5):

American industry is spending $450,000,000 a year.
The United States Government spends $625,000,000 a year.
Universities and other agencies are spending $85,000,000 a year.

This means that Americans are spending a total of $1,160,000,000 annually for applied and developmental research, but only about $554,565 for research in multiple sclerosis, a crippling disease affecting about 200,000 citizens.

VII. How much is the Government spending for the establishment of multiple sclerosis clinics and services?

1. The Federal Government is doing nothing about establishment of multiple sclerosis clinics and services at this time.

(*a*) However, the Veterans' Administration does admit patients suffering from multiple sclerosis to its facilities. The National Multiple Sclerosis Society maintains a close and effective liaison with these Veterans' Admininstration facilities (3).

(*b*) The Office of Vocational Rehabilitation of the Federal Security Agency occasionally undertakes the care of multiple sclerotics, but their feeling is that such patients are a poor investment from the standpoint of vocational rehabilitation.

2. The State and city health departments are doing nothing about establishment of multiple sclerosis clinics and services.

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VIII. How many doctors specialize in multiple sclerosis?

There is no separate speciality in multiple sclerosis recognized by the certifying American boards. However, because of the efforts of the National Multiple Sclerosis Society, many prominent neurologists have now developed a keen interest in multiple sclerosis and its allied neurological problem.

More basic and clinical research is now being conducted in various university medical centers and the results of these researches are appearing in greater number in medical publications (3).

IX. How are the known cases of multiple sclerosis apportioned as to age groups?

Multiple sclerosis in the majority of cases is a disease of young adults, stricken during the most productive years of their lives, between the ages of 20 and 45.

However, multiple sclerosis is not uncommon in children under 11 years of age, but the disease more frequently strikes persons between 11 and 18 (6).

X. What are the research leads toward better treatments or cures in the field of multiple sclerosis?

There are many leads in multiple sclerosis, the most important of which are—

1. The study of the ultrastructure of the myelin sheath from the standpoint of biophysics and biochemistry, using polarized light, X-ray refraction and the electron microscope.
2. The study of the mechanism of remissions.
3. Continued clinical investigations with ACTH and cortisone have produced stimulating responses in early cases—certainly of a nature which makes it mandatory to continue investigative efforts in this field.
4. Study in virus etiology to determine whether multiple sclerosis is a virus disease or a disease aggravated by virus disease.
5. Study of allergy.
6. Study of deficiencies in blood circulation of the brain and spinal cord.
7. Study of nutrition in relation to multiple sclerosis.
8. Psychological studies: As many multiple sclerosis patients have disturbed psychological backgrounds, study in this field might determine whether disturbed psychological background is a contributing cause of the disease or one of the manifestations of the disease.
9. Adenosine triphosphate (ATP): There are several theoretical reasons why ATP may be a useful agent in multiple sclerosis and similar diseases. Very few cases have been briefly studied to see whether this drug, known to be involved in the metabolic processes of all cells, may have important therapeutic application (3).

XI. Where can doctors and laymen get information regarding treatment and rehabilitation of multiple-sclerosis victims?

The National Multiple Sclerosis Society has recently published and has available for distribution to physicians and properly qualified medical personnel, without charge, two comprehensive manuals dealing with the various aspects of this disease. These manuals are entitled: "Multiple Sclerosis and Its Treatment" by George A. Schumacher, M. D.: "Multiple Sclerosis: Application of Rehabilitation Techniques" by Edward E. Gordon, M. D.

Other manuals dealing with the various aspects of rehabilitation for patients are in preparation as well as manuals dealing with the psychotherapeutic connotations of multiple sclerosis. These latter manuals will be ready for distribution in 1952. These manuals are obtainable from the Medical Director, National Multiple Sclerosis Society, 270 Park Avenue, Suite 7G, New York 17, N. Y. (3) (7).

REFERENCE LIST

(1) Certification of Multiple Sclerosis as a Cause of Death, by Leonard T. Kurland, M. D., and I. M. Moriyama, Ph. D., J. A. M. A., March 10, 1951, vol. 145, pp. 725–728.
(2) Mortality and Disability in Multiple Sclerosis, by Alexander R. MacLean, M. D., and Joseph Berkson, M. D., J. A. M. A., August 11, 1951, vol. 146, pp. 1367–1369.
(3) Letter dated September 26, 1951, from Sylvia Lawry, executive secretary, National Multiple Sclerosis Society, in conjunction with Dr. Cornelius H. Traeger, medical director of the National Multiple Sclerosis Society.
(4) Budget of the United States, fiscal year ending June 30, 1952.
(5) Science and Public Policy, a report to the President by the President's Scientific Research Board, vol. I, p. 12, August 27, 1947.

(6) Dr. H. Houston Merritt, Neurological Institute of New York, report made to the National Multiple Sclerosis Society in March 1949.
(7) Letter dated October 11, 1951, from Sylvia Lawry, executive secretary, National Multiple Sclerosis Society, in conjunction with Dr. Cornelius H. Traeger, medical director of the National Multiple Sclerosis Society.

All other statements made by Dr. Cornelius H. Traeger, medical director, National Multiple Sclerosis Society, upon information and belief, by personal interviews in March 1949 and April 1950.

APPENDIX I

Funds available for multiple-sclerosis research (1950–51)

Government funds: The United States Public Health Service has made available the following funds:	
1. For the continuation of the Elvin Kabat allergy research project (which was supported by the National Multiple Sclerosis Society for 2½ years) for a 2-year period, 1950–52	$62,500
2. The Lewis Thomas research project at Tulane University (which was supported by the National Multiple Sclerosis Society for 2 years) for a 3-year period beginning 1950	44,226
3. For the purchase of ACTH and cortisone to be used for investigative purposes in multiple sclerosis at the Neurological Institute, N. Y.	10,000
4. For grantee H. H. Merritt to study the effect of ACTH on the clinical course of multiple sclerosis and amyotrophic lateral sclerosis	4,752
5. To support one fellow in multiple-sclerosis research	4,140
6. For study of the epidemiology of multiple sclerosis at the Neurological Diseases and Blindness Institute	15,000
Total Government funds	140,618
Non-Government funds:	
The National Multiple Sclerosis Society for the period from the inception of the society (April 1947) through Aug. 31, 1951	340,347
The Kresge Foundation grant for a 3-year period starting September 1950	48,600
The Multiple Sclerosis Foundation grant for 1951	25,000
Total non-Government funds	413,947
Total all funds	554,565

REFERENCES FOR APPENDIX I

Items 1, 2, and 3 on preceding page ascertained from Dr. Cornelius H. Traeger, medical director, National Multiple Sclerosis Society, by phone, October 1, 1951.

Items 4, 5, and 6 ascertained by phone on same date from Mr. J. H. McLoughlin, Financial Management Branch, National Institutes of Health, Bethesda, Md.

Non-Government funds ascertained from letters dated September 26, 1951, and October 11, 1951, from Sylvia Lawry, executive secretary, National Multiple Sclerosis Society, in conjunction with Dr. Cornelius H. Traeger, medical director of the National Multiple Sclerosis Society.

EXHIBIT C

REQUESTS FOR GRANTS-IN-AID FOR RESEARCH AND RESEARCH FELLOWS TO THE NATIONAL MULTIPLE SCLEROSIS SOCIETY

1. (*a*) The histopathology of the cerebral cortex. (*b*) Dr. N. W. Winkelman, professor of Neuropathology Graduate School of Medicine, University of Pennsylvania, $10,000 per year for 2 years.

2. (*a*) Multiple sclerosis; hereditary degenerative diseases related to the central nervous system. (*b*) Hans H. Reese, professor of neuropsychiatry, University of Wisconsin medical department. Three years; total, $99,600.

3. (*a*) Virus encephalitis in neurological diseases. (*b*) Dr. George N. Thompson, associate clinical professor of neurology, University of Southern California, School of Medicine, Los Angeles, Calif.; $5,000 per year.

4. (*a*) Dr. James L. O'Leary, professor of neurology, Washington University School of Medicine, St. Louis, Mo. (*b*) Grants for teaching instructors in neuropathology, $13,032.

5. (*a*) Jewish Memorial Hospital, Dr. Henry Baker, chief of staff. Expanded facilities for multiple-sclerosis clinics and research unit, $100,000.

6. (*a*) Yale University School of Medicine, Dr. William J. German, professor of neurological surgery. Grants for fellowships, teaching, and trainees in diseases of the central nervous system, $45,000 to $65,000.

7. (*a*) Psychiatric studies, spinal-fluid studies, surgery, electro-measurements and evaluations, $18,000. Dr. Alexander T. Doss, professor of neurology; chairman of the department of neurology and psychiatry, Indiana University Medical Center.

8. (*a*) Massachusetts General Hospital. Drug evaluation—Parkinson's disease, convulsive disorders. Electro- and encephalographic studies. Robert Schwab, M. D., director, Brain Wave Laboratory.

9. (*a*) Dr. Walter F. Schaller. San Francisco radioactive isotope tracer substances in pathogenesis of experimentally produced myelin lesions. Stanford University Medical School, $22,000.

10. (*a*) Dr. Marion B. Sulzberger, professor and chairman, department of dermatology, New York University-Bellevue Medical Center. Studies in allergy in multiple sclerosis, $32,400 per year.

11. (*a*) Dr. Leo Alexander, of Multiple Sclerosis Research Clinic, Boston State Hospital, Massachusetts. Study of alterations in capillary resistance. Study of lipoproteins. Trial treatment studies. Blood transfusion study reported. Allergy in multiple sclerosis, and controlled study of physiotherapeutic methods in multiple sclerosis. $55,900.

12. (*a*) John G. Kidd, Cornell University, Department of Pathology, New York. Experimental analysis of encephalomyelitis and demyelinization. Other studies in neuropathology. $12,000 per annum.

13. (*a*) Dr. Charles Aring, professor of neurology, University of Cincinnati, College of Medicine. Genesis of tremor, brain surgery, neurophysiology of migraine, dynamic psychiatric approaches to problem of epilepsy. $20,000 per year.

14. (*a*) Dr. Herman Kabat, director of Kabat-Kaiser Institute, Vallejo, Calif. Research in rehabilitation and physical medicine in multiple sclerosis. $25,000 per annum.

15. Dr. H. Houston Merritt, professor of neurology; director of service of neurology, Neurological Institute, Presbyterian-Columbia Medical Center. New York research program:

(1) Effective treatment of ACTH on central nervous system and neuromuscular function and certain diseases of the nervous system, $68,700 per year.

(2) Study of convulsive disorders, $61,600 per year.

(3) Experimental studies in value of anticonvulsant drugs in adults, $20,000 per year.

(4) Experimental studies in production of acute disseminated encephalomyelitis in monkeys and relationship of disease to multiple sclerosis and allied demyelinating diseases, $22,000 per year.

(5) Studies in etiology in cerebral palsy, $25,000 per year.

(6) Studies in gamma globulin content and cerebrospinal fluid, $5,000 per year.

(7) Experimental studies of brain areas, $25,000 per year.

(8) Studies of biochemistry of transmission of nerve impulse, $50,000 per year.

(9) Effect of intrauterine infections with various virus diseases on development of fetus, $10,000 per year.

(10) Comprehensive study of pathology of brain tumors, $7,000 per year.

(11) Studies in physiology of central and peripheral nervous system by electrophysiological methods, $20,000 per year.

(12) Research fellowships (4 at $5,000 per year), $20,000 per year.

16. Dr. Francis M. Forster, Georgetown University Medical Center, Georgetown University Hospital, Washington, D. C. Study of neuropathological changes in acute epizootic leucoencephalitis of horses and histopathologic study of lesions in multiple sclerosis, $27,000.

17. Dr. A. B. Baker, professor and director, division of neurology, University of Minnesota. Trainee, $8,000.

Histochemical studies—central nervous system, $32,600.

18. Dr. H. H. Garner, chairman, department of neurology, Chicago Medical School:

Teacher and research worker in neurology—full time (1), $10,000.

Teacher and research worker in neurology—part time (1), $5,000.

Studies on bony changes in neurologic diseases, $5,000.

Clinical follow up study of chronic neurologic diseases, $15,000.

19. Dr. Tracy J. Putnam, director of neurosurgery service, Cedars of Lebanon Hospital, Los Angeles, Calif.:

Experimental and pathologic studies on etiology of multiple sclerosis, $30,000.

Evaluation of anticonvulsant drugs in epilepsy, $20,000.

20. Dr. George A. Schumacher, professor of neurology, University of Vermont, chairman of division of neurology, University of Vermont College of Medicine:

Fellowship in neurology per annum, $3,000.

Fellowship in neurosurgery per annum, $3,000.

Fellowship in ophthalmology per annum, $3,000.

Neurology out-patient department, $3,200.

Neuropathologist for teaching and research, per annum, $9,000.

21. Dr. Murray Sanders, professor of bacteriology, University of Miami, medical research unit, Veterans' Administration Hospital, Coral Gables, Fla. Isolation and production of nontoxic factors in poliomyelitis viruses and in eastern equine encephalomyelitis infections, and study of certain agents in treatment of multiple sclerosis and epilepsy. Per annum for 3 years, $50,000.

22. Dr. Lewis Thomas, research professor, University of Minnesota Medical School, Minneapolis. Research in experimental demyelinating diseases of animals and their relation to multiple sclerosis and to hypersensitivity. Five-year study, $118,000.

23. Dr. Henry H. Henstell, Institute for Medical Research, Cedars of Lebanon Hospital, Los Angeles, Calif. Studies of blood clotting mechanism and blood platelets in multiple sclerosis, $6,000.

24. Dr. William B. Birnkrant, Bellevue-New York University Medical Center. Study of anaerobic organisms in the gastro-intestinal tract of multiple sclerosis, $18,000.

25. Dr. Harold G. Wolff, professor of medicine (neurology), New York Hospital, Cornell University Medical School. Investigation of relationships between oxygenation and neural functions. $54,000.

26. Dr. Arthur Ecker, Syracuse Memorial Hospital and State University School of Medicine, Syracuse, N. Y. Cerebral angiography in study of localized disturbances in the cerebral blood flow, $15,000.

27. Dr. Molly Harrower, psychiatric consultant, air surgeon. Teaching manuals for patients and physicians. Preparation of manuals for patients and physicians on psychotherapy in multiple sclerosis, $5,000.

28. Dr. George A. Emerson, professor of pharmacology, University of Texas, medical branch. Relation of drugs on the motor cortex mechanisms of nerve transmissions and central nervous system, $12,000.

29. Dr. Aaron H. Canter, clinical psychologist, mental hygiene clinic, Phoenix regional office of Veterans' Administration, Phoenix, Ariz. Psychometric studies in multiple sclerosis, per year $2,000.

30. Dr. Harold H. Jones, Snyder-Jones Clinic, Winfield, Kans. Biochemical studies in multiple sclerosis, $15,500.

31. Dr. Allen S. Russek, coordinator for research and education and Howard A. Rusk, M. D., director, Institute of Physical Medicine and Rehabilitation, New York University-Bellevue Medical Center.

(1) Research in physical medicine and rehabilitation, $100,000.

(2) Research in training methods in combination with use of Cortisone, $100,000.

(3) Research in combined use of rehabilitation methods with ACTH in certain neuromuscular conditions, particularly multiple sclerosis, training and fellowship program, $300,000.

Grand total, $1,781,532.

EXHIBIT G

National Institute for Neurology and Blindness, per annum requirements for teaching grant-in-aid programs for neurologic departments in medical schools and hospitals, as of Dec. 10, 1951

University or hospital	Staff salaries	Training stipends	Supplies and equipment	Total
Albany Medical College				$30,000
Arkansas University	$78,000	$21,600		99,600
Baylor University	3,500		$2,000	5,500
Bowman Gray School of Medicine	18,100	8,800	800	27,700
California (UCLA)	8,000			16,000
Chicago University	25,000			25,000
Cincinnati University				25,000
Colorado University		14,000		14,000
Columbia University	20,000	24,000		44,000
Creighton University	14,400			14,400
Duke University		8,000		8,000
Emory University	14,000			14,000
Georgetown University	32,000		3,700	35,700
Harvard University	39,000			39,000
Indiana University	20,300	8,000	5,200	33,500
Iowa University				10,000
Kansas University	21,300		1,000	22,300
Lennox Hill Hospital		4,000		4,000
Louisville General Hospital	24,000		4,000	28,000
Michigan University				50,000
Minnesota University	15,000	10,000		25,000
Montefiore Hospital	20,000	14,400	6,000	50,000
Mount Sinai Hospital	28,000	9,000		37,000
Northwestern University	20,700	5,400	6,700	32,800
Oregon University		17,000	9,000	26,000
Philadelphia General Hospital				12,000
Southwestern Medical School	13,200	8,000	1,500	22,700
Stanford University				30,000
Texas University	10,000			10,000
Tulane University	22,000			22,000
University of Utah				25,000
Vermont University				24,000
Virginia University	16,000		5,000	21,000
Washington University, St. Louis	25,000		25,000	50,000
Yale University				60,000
Vanderbilt University	26,800	7,600	16,250	50,650
Total	514,300	159,800	80,960	
Grand total				1,043,850

Comparative figures, public (voluntary health agencies) and Government funds available for diseases [1]

Diseases	Estimated disabilities, 1950	Public funds		Government funds			Conclusions		
		Raised by public last 7 years, 1944–50	Raised by public 1 year, 1950	Government appropriations to Institute last 7 years	Government appropriations to Institute, 1950	President's budget, 1953	Total funds past year, Government and private	Total funds last 7 years, Government and private	Spent revenue disability last 7 years approximate
Cancer (and tumors)	$1,100,000	$68,209,192	$13,933,638	$89,300,000	$19,000,000	$15,371,000	$32,933,638	$157,509,192	143
Microbiology:									
TB	500,000	123,644,150	20,960,000	124,600,000	10,000,000		30,960,000	248,244,150	498
VD	3,363,014	2,581,093	361,260	65,000,000	16,300,000		16,661,260	67,581,093	22
Total	3,863,014	126,225,243	21,321,260	189,600,000	26,300,000	4,538,400	47,621,260	315,825,243	82
Heart	9,590,000	9,555,655	4,104,485	38,600,000	9,900,000	9,749,000	14,004,485	48,155,655	5
Mental health	8,500,000	1,455,795	194,369	40,700,000	8,700,000	10,972,000	8,894,369	42,155,795	5
Arthritis and rheumatism	7,500,000	2,046,393	1,054,082	5,662,000	[2] 2,400,000	3,551,800	3,496,331	7,919,112	949
Diabetes	1,000,000	210,819	42,249						
Total	8,500,000	2,257,212	1,096,331						518
Polio	250,000	129,568,806	26,995,572	275,000	80,000	100,000	27,405,000	129,843,806	
Other chronic neurological diseases and blindness:									
Epilepsy		51,536	18,163						
Cerebral palsy		1,171,580	1,022,000						
Muscular dystrophy		52,150	52,150						
Deafness		424,456	84,575						
Blindness		4,930,919	702,799						
Total	19,700,000	6,630,641	1,879,687	1,537,000					
Multiple sclerosis and related diseases	300,000	656,399	181,908	150,000			181,908	806,399	*Cents* 27
Total	20,000,000	7,287,040	2,061,595	1,687,000	[2] 500,000	1,240,200	2,561,595	8,974,040	45

[1] Approximate figures.
[2] 1951, first year of Institute.

National Institute of Neurology and Blindness

Description	1952 current budget	1953 Budget Bureau estimate	1953 voluntary agencies' recommended budget
Grants:			
1. Grants to medical schools and other institutions and to individuals for research and training:			
(*a*) Research projects	$1,015,000	$1,015,000	
Blinding eye diseases			[1] $1,250,000
Neurological diseases, including cerebral palsy, multiple sclerosis, epilepsy, Parkinson's disease and others			[2] 2,250,000
(*b*) Research fellowships	51,400	51,400	
Neurology			360,000
Blinding eye diseases			[3] 360,000
Rehabilitation			180,000
(*c*) Teaching of medical subjects	0	0	
Neurology			[4] 1,000,000
Blinding eye diseases			[5] 500,000
Rehabilitation			500,000
(*d*) Training stipends	36,000	36,000	
Neurology			100,000
Blinding eye diseases			[3] 100,000
Rehabilitation			100,000
2. Research projects in control and rehabilitation methods	0	0	375,000
3. Grants to States	0	0	2,000,000
4. Construction of research facilities	0	0	[6] 5,000,000
Direct operations:			
1. Research	66,650	137,800	1,550,000
2. Review and approval of research and training grants	20,530	20,530	75,000
Total	1,189,580	1,260,730	15,700,000
Construction of research facilities	0	0	−5,000,000
Total obligational cash	1,189,580	1,260,730	10,700,000

[1] This amount of $1,250,000 is based on the results of a sampling survey made by the National Council To Combat Blindness, in which 18 institutions requested $346,980. It is estimated that when additional institutions interested in this field are heard from, $1,250,000 minimum would be needed. (See exhibit B.)

[2] This figure of $2,250,000 is based on estimates as a result of a survey made by Dr. Cornelius H. Traeger, medical director of the National Multiple Sclerosis Society, which resulted in requests totaling $1,781,532. As these requests have come from a limited number of institutions, $2,250,000 represents a modest sum. (See exhibit C.)

[3] The figures totaling $460,000 for research fellowships and training stipends in blinding eye diseases are modest amounts as the National Council To Combat Blindness alone has received requests totaling $955,100. (See exhibit B.)

[4] At a survey made by the National Institute of Neurology and Blindness, a total of 36 teaching institutions have requested $1,043,000 from the institute for the teaching of neurological subjects. (See exhibit G.)

[5] An estimate of requests amounting to $220,000 for the teaching of medical subjects has come from 18 institutions to the National Council To Combat Blindness. If the 72 approved medical schools in the United States are taken into account, a minimum of $500,000 would be required at once to improve teaching in blinding eye diseases. (See exhibit B.)

[6] No funds at present are estimated for construction needs in neurological research, but in blindness research the National Council To Combat Blindness in their survey has received requests in the amount of $1,938,000 from 22 institutions, for there is great need of more adequate research facilities in blinding eye diseases. (See exhibit B.)

NOVEMBER 28, 1951.

DR. PEARCE BAILEY,
Director, National Institute of Neurological Diseases and Blindness, Public Health Service,
Bethesda, Md.

DEAR DR. BAILEY: I am most grateful to you for the opportunity of presenting to you the pertinent problems in the field of multiple sclerosis and its related demyelinating diseases, from the standpoint of basic research, current trends of research, new fields to be explored which might be fruitful leads in the solution of the problem, and the estimated cost to continue present promising projects and to support new ones.

1. The pattern of research in multiple sclerosis and its related demyelinating diseases in the past 10 years has concerned itself for the most part with the following types of investigation:

(*a*) Anatomical and pathological aspects of the disease in autopsy material obtained from humans and from studies in the demyelinating diseases in experimental animals. The work of Rivers and Schwentker, Elvin Kabat and his associates, L. Thomas, and R. Morrison have dealt with the various aspects of

experimental acute allergic encephalomyelitis produced in laboratory animals by the injection of homologous brain tissue with adjuvants.

(*b*) The role of the capillary circulation of the brain and spinal cord; attempting to develop a relationship between thrombo-embolic phenomena in the capillaries as related to demyelination and plaque formation.

(*c*) Cerebral blood flow, the significance of peripheral vascular changes and the significance of localized vasomotor constrictions have been explored.

(d) The possible relationship between swayback (a demyelinating disease in lambs), and trace metals (copper).

(*e*) Relationship of the distemper virus in the etiology of animal encephalopathies.

(*f*) Investigations dealing with the ultrastructure and chemistry of the myelin sheath and nerve, and chemistry of myelination and demyelination have been pursued.

(*g*) The pathogenesis of encephalomyelitis associated with vaccines and the exanthems have been explored.

(*h*) Studies dealing with the cerebral spinal fluid in multiple sclerosis and electro-encephalographic studies have been part of the research program in the past.

(*i*) The possible spirochetal etiology of multiple sclerosis has been studied both in this country and abroad.

(*j*) The problems of evaluation of the physical status of persons suffering from multiple sclerosis from the standpoint of rehabilitation have been explored and techniques have been developed to cope with these problems.

(*k*) Attempts have been made to develop serological tests dealing with blood and spinal fluids in the attempt to develop a serological diagnostic test in multiple sclerosis. Other studies of cerebrospinal fluid protein fractions are under way.

(*l*) Data have accumulated suggesting an effect of climate on the incidence of the disease.

(*m*) Clinical studies of various drugs, chemical and physical techniques and modalities have been explored dealing with the symptomatic treatment of multiple sclerosis and its related neurological entities. In this group are included histamine, dicoumarin, curare, myanesin, sodium succinate, vitamins, tetraethylammonium chloride, antihistaminics, neostigmine, and more recently the effect of cortisone acetate and corticotrophin (ACTH). Those have appeared in the literature. Transfusions, various electrical muscle stimulating devices, intensive supervised physical therapy, various dietary regimens have also been reported.

(*n*) The relationship between brucellosis and multiple sclerosis has been studied.

As a result of this research the following negative statements appear reasonable:

(*a*) The etiology of the disease is unknown.

(*b*) No specific therapy has been developed.

(*c*) No reliable serological diagnostic procedures have been developed.

(*d*) The mechanism of remission and exacerbation remains unknown.

(*e*) No reliable criteria for prognosis have been developed.

(*f*) No universally accepted criteria for early disagnosis have been established.

On the positive side:

(*a*) Multiple sclerosis and other demyelinating diseases have been classified.

(*b*) Diagnostic criteria, while not absolutely standardized or accepted (especially in early cases), have been improved.

(*c*) The importance of general hygienic and supportive measures and modalities of physical medicine and corrective psychotherapy have all been proved to be useful.

(*d*) Many of the medications mentioned above have been found useful in dealing with various symptoms presented by patients with multiple sclerosis.

(*e*) The lay and medical public have come to appreciate the extent and the importance of multiple sclerosis.

(*f*) Multiple sclerosis occurs more frequently in cold climates than in warmer areas.

2. Important trends in current research projects in multiple sclerosis:

(*a*) The continuation of studies dealing with antigenic factors concerned with the production of acute encephalomyelitis in experimental animals.

(*b*) Continued research into the ultrastructure and chemistry of myelin.

(*c*) Studies in the development of myelination and demyelination.

(*d*) The role of virus in the etiology of the encephalopathies and multiple sclerosis.

(*e*) The importance of trace elements.

(*f*) The epidemiological study of multiple sclerosis dealing with such factors as incidence, prevalence, geographic distribution, and racial distribution.

(*g*) The role of allergy.

(*h*) The effect of heredity, trauma, exposure, pregnancy, illness, and surgery.

(*i*) The psychotherapeutic implications and complications of the disease.

(*j*) Biochemical and nutritional studies.

(*k*) Study in the field of physical medicine and rehabilitation.

(*l*) Psychometric studies.

(*m*) Home-care programs.

3. New fields to be explored in multiple-sclerosis research:

(*a*) Studies in muscle-nerve physiology and chemistry, the alterations in the myoneural junction in multiple sclerosis. The role of adenine nucleotides and particularly adenosine 5 diphosphate and adenosine triphosphate.

(*b*) Studies on the role of the blood-brain barrier in multiple sclerosis.

(*c*) Intensive investigation of the effect of toxins, organic and industrial solvents, noxious gases in the etiology of multiple sclerosis.

(*d*) Role of parasites (protozoa and metazoa), in the etiology of multiple sclerosis and of animal diseases having certain similarities.

(*e*) The extension of studies of endocrine gland (particularly adrenocortical), physiology in the etiology of multiple sclerosis.

(*f*) The role of enzyme systems in multiple sclerosis and in experimental demyelination.

(*g*) Further studies in the psychological areas of stress in the development of multiple sclerosis.

(*h*) Development of newer precision measuring instruments, similar to the electromyograph and electroencephalograph, to provide better diagnostic and prognostic procedures.

(*i*) Further investigation in the field of genetics in laboratory animals suffering from demyelinating disease.

(*j*) Effect of temperature and/or pressure under controlled environmental conditions in the treatment of early multiple sclerosis.

(*k*) Ultrasonic energy in its effect on nerve and muscle on physiological preparations and in patients.

(*l*) Studies in the mechanics of remission.

4. The desirable results which could reasonably be expected from such a program include:

(*a*) Clues to the etiology of the disease. It is probable that if the mechanism of remission is understood it might be possible to arrest or reverse the disease process.

(*b*) A reliable serological test for the diagnosis of multiple sclerosis.

(*c*) The development of criteria by which clinical investigation may be more precisely evaluated. The application of clinical techniques dealing with medications and the modalities of physical medicine to maintain the patient in good physical status with the alleviation of distressing symptoms and to prevent further extension of the disease.

5. Progress has been made in all of the above fields. The accumulation of negative information is enormous and thus eliminates the necessity for further research along the lines of established negative findings.

The present needs for further research are as follows:

(*a*) The training of research personnel in the basic disciplines dealing with the pathology, anatomy, physics, chemistry, physiology, genetics, and physical therapy as applied to the neglected field of the demyelinating diseases.

(*b*) Development of newer diagnostic techniques, and techniques for measuring changes in response to medication and modalities of physical medicine.

(*c*) Necessity for multiple sclerosis clinics in association with research teams in university hospitals.

(*d*) Continuation of current research studies and the institution of the newer fields as described in sections 2 and 3.

Men and facilities are available to conduct these research problems in university medical centers, in neurological institutes, and in large hospitals. These are presently most inadequate and need to be supplemented and implemented.

Centers for adequate research in the field of multiple sclerosis are available in such centers as:

Boston State Hospital, Boston, Mass.
Cedars of Lebanon Hospital, Los Angeles, Calif.
Emory University, Atlanta, Ga.
Harvard University Medical School, Boston, Mass.
Jefferson Medical, Philadelphia, Pa.
Jewish Sanitarium and Hospital for Chronic Diseases, Brooklyn, N. Y.
Johns Hopkins Medical School, Baltimore, Md.
Massachusetts General Hospital, Boston, Mass.
Mayo Clinic, Rochester, Minn.
Medical School of Alabama, Birmingham, Ala.
Montefiore Hospital, New York City
Neurological Institute, Columbia University, New York City
New York Hospital, Cornell, N. Y.
New York University-Bellevue Medical Center, New York City
Northwestern University, Chicago, Ill.
Osler Clinic, New Orleans, La.
Peter Bent Brigham Hospital, Boston, Mass.
Philadelphia General Hospital, Philadelphia, Pa.
Snyder-Jones Clinic, Winfield, Kans.
Stanford University, San Francisco, Calif.
Tulane University School of Medicine, New Orleans, La.
University of California Medical School, San Francisco, Calif.
University of Cincinnati, Cincinnati, Ohio
University of Chicago Medical School, Chicago, Ill.
University of Michigan, Ann Arbor, Mich.
University of Minnesota, Minneapolis, Minn.
University of Pennsylvania, Philadelphia, Pa.
University of Pittsburgh, Pittsburgh, Pa.
University of Southern California College of Medicine, Los Angeles, Calif.
University of Wisconsin Medical School, Madison, Wis.
Wayne University, Detroit, Mich.

A basic science program at each center would require approximately $50,000 per annum	$1,250,000
Research fellowships at each center, $25,000 per annum	625,000
Training stipends at each center, $15,000 per annum	375,000
Establishment of clinics and a clinical program at each center, $20,000 per annum	500,000
Personnel costs would approximate $50,000 per annum	1,250,000
Total per center, $160,000; grand total	4,000,000

Construction would depend on already existing facilities but would approximate $250,000, to include laboratory equipment, beds, patient care and nursing service, medications, facilities for experimental animal equipment physical therapy equipment, secretarial services and other incidental expense. These figures would naturally vary with each institution.

It would be most desirable to develop and finance a national or international congress to deal with the problems in basic and clinical research developed by such a program.

Sincerely yours,

CORNELIUS H. HRAEGER, M. D.,
Medical Director.

Mr. FOGARTY. I think you have made a very forceful statement in bringing the attention of this committee to the plight of so many millions of people. You have compared the plight of these millions with the advances made in the fields of heart trouble, cancer, mental illness and others, and also have compared the cost or the dollars spent on these cancer patients, heart patients, and all that.

However, I think you have been before this committee before, and I think you know that one of the problems you speak about has not been the fault of Congress but the fault of the public; that the public has got to be behind certain issues before Congress takes action.

That is the reason that we passed the National Heart Institute Act in 1948, because the people were aroused and they got behind it and

brought it to the attention of the Members of Congress, and finally after 2 or 3 years of trying they got that act through. The same way with cancer. The same thing can be said about mental health. As a result, this committee of Congress has been responsible for today appropriating $15,000,000 for research in cancer, about $11,000,000 in mental health, and about $9,000,000 in heart, because over the years Congress took that action and we have followed it because of the demands made upon Congress by the people.

Also as you know, in 1948 through the recommendations of this committee, plans were drawn for the new clinical center at Bethesda and construction was authorized. We haven't finished paying for it yet. It will cost in excess of $60,000,000. That is a picture of it up on the wall. We are told by our people that it will be one of if not the greatest medical research centers in the world.

Then along came some who finally got interested in the people that you are speaking for today, and through the aroused public interest those new Institutes were established by Congress—Arthritis and Metabolic Diseases, and Neurological Diseases and Blindness. This is practically the first year that a budget has been presented to us for appropriations in these two institutes. So I think you can see that this committee has not been asleep or they have not remained stagnant in this field.

I know 3 years ago I did not know what multiple sclerosis was when I attended a banquet in Washington and met a friend of mine from Rhode Island who was there on crutches. I asked him what was the matter. He told me he had multiple sclerosis and that was the first time I knew what multiple sclerosis was.

After talking to him and finding out his problem and asking him what he had been doing about it, I found that it was practically incurable, that nobody know the cause of it, and that there was hardly any hope. He was a young fellow in his late thirties at that time.

I asked the Public Health officials what was being done for multiple sclerosis, and found out hardly anything was being done about it. I think in the neighborhood of $100,000 was being spent at that time.

I remember asking this year what they were requesting for 1953, and it is only $170,000 for research into a disease that is progressive and for which there is no cure, no control.

I think it is a deplorable fact that we have these conditions existing, and I fully understand how you feel about it because you are living with these problems all the time.

This committee recognizes that, but I don't believe the majority of the Members of Congres do. It is my opinion that there hasn't been that public opinion aroused by the people afflicted with these diseases, although the action by Congress 2 years ago and these appropriations, small as they are, we think are going to stimulate interest as it has stimulated interest in the heart drives, cancer drives, mental health drives all over the country, and we hope in arthritis, rheumatism, and these other voluntary foundations and organizations that are in existence today. We believe that the action of Congress in the appropriation of funds has stimulated interest in all these programs and as a result these drives have been going over bigger and bigger every year instead of diminishing as some of us thought might happen when we got into the field of appropriating funds for research into these leading causes of death.

I thought I would just give you that background. I think you knew it anyway, but we have been attempting in our own way to progress with these things as they come to us. I can't speak for the committee, but I do hope that in the future that more funds will be allowed by the Bureau of the Budget to operate this particular institute because it affects so many people and so little has been done and is being done in this field at the present time.

Dr. TRAEGER. You see, Mr. Fogarty, the problem that faces these neurological diseases is that they lack a punch. You can sell polio to the public, you can sell cancer to the public, you can sell heart and tuberculosis to the public, and even rheumatism, but it is awfully hard. These are the forgotten diseases. These are the ones you don't hear about.

Mr. FOGARTY. We found that condition to exist in the Mental Health Institute, Doctor, but we find that many more people are being trained and specializing in mental health since we have been in this field in the last 3, 4, or 5 years.

Yesterday we were told by these outstanding doctors in these fields that much progress has been made. We believe we have made some progress in mental health by training people, providing funds for training, which we haven't done yet in this particular institute.

Dr. TRAEGER. Well, I am just hoping that we can get the same shake as mental health. If we can, we will deliver the goods to you.

Mr. FOGARTY. I hope eventually that you can, because I think there is a need for it.

Mr. HEDRICK. Doctor, is the anterior or posterior-horn affected first?

Mr. TRAEGER. In multiple sclerosis, as the name implies, it may attack any portion of the brain or cord, and that part of the brain or cord which becomes sclerotic is destroyed.

Mr. HEDRICK. But in most cases one of the horns becomes affected first; isn't that true?

Dr. TRAEGER. It is not like polio. It attacks any portion. A multiple sclerotic may have as his first symptom blindness or disturbed speech or loss of control of his bladder or a tremor or spastic paralysis or disturbances of gait. It depends. It will attack any part of the brain or spinal cord. It does not involve, however, the peripheral nerves in the arms, legs, and trunk.

Mr. HEDRICK. Is there any idea as to what the cause might be?

Dr. TRAEGER. The National Multiple Sclerosis Society has spent to date $413,000 or $414,000 on 17 research projects which includes such theories as allergy, spirochets, circulation, metals and minerals, thrombotic clot formation, virus, especially virus. There is a good reason to believe that it might be a virus. There is no proof at all.

It is a difficult disease, because you cannot make multiple sclerosis in a laboratory animal. You can make a disease like it, but you can't make a multiple sclerosis dog, monkey, or guinea pig. It is a very difficult problem.

Mr. HEDRICK. Have any microscopic tests been made of the cords or of the brain?

Dr. TRAEGER. Yes, sir. Pathology of multiple sclerosis is a well-explored field, but in the living it is impossible to examine brain or spinal cord tissue.

Mr. HEDRICK. It could be done immediately after death.

Dr. TRAEGER. It has to be done immediately after death.

Mr. HEDRICK. What are the changes in the brain?

Dr. TRAEGER. The brain tissue, the nerve tissue which is represented by the brain and spinal cord, shows, under appropriate staining conditions areas, patches of what we call demyelination where the coverings of the nerves are completely destroyed and replaced by scar tissue, and that scar tissue was dead tissue, just as dead as your fingernail or the hair, completely useless, and it may be scattered in large areas, in large blocks or it may be scattered on thousands of small ones in the brain or spinal cord.

Dr. HEDRICK. It attacks a big, strong individual just as quickly as it does a sickly person?

Dr. TRAEGER. Probably more frequently.

Mr. HEDRICK. I know we had a husky 6-foot policeman in my home town who was attacked by it. It hit him all at once. The fact that a man never smoked or drank or lived in any way to excess is no protection for him.

Dr. TRAEGER. The strongest and healthiest man may become a complete cripple overnight. It frequently happens.

Mr. HEDRICK. It is a very distressing disease, there is no question about it.

Mr. DENTON. Doctor, I notice that you said when the tissue of the brain or the spinal cord was damaged, it never healed. What is your research proposing to do, to prevent the things that cause this injury, or is there some form of rehabilitation?

Dr. TRAEGER. Thank you very much for asking that question. I hate to take up this much of your time, but if you are interested, I am glad you asked that question.

There are many diseases like multiple sclerosis which are characterized by remissions. A man may be completely paralyzed and blind today from multiple sclerosis, and 6 months from now be a perfectly normal individual. It is a reversible disease, just like rheumatoid arthritis is a reversible disease.

Spontaneously they get better. Now if we can uncover the mechanism, the physiological mechanism, which produces these remissions, even if we don't know the cause of the disease, we have a method of control, so that although a man may get multiple sclerosis, if we can imitate nature in bringing about these remissions, the man is just as cured as I am of tuberculosis, and the same thing is true in rheumatoid arthritis.

If we can imitate nature in bringing about a spontaneous remission, you have what in effect is complete control, and that is what we hope to do. We hope to be able to bring about a remission before the nerve tissue is irreversibly destroyed. That is our problem.

Mr. FOGARTY. Mr. Schwabe.

Mr. SCHWABE. I don't believe I have any questions.

Mr. FOGARTY. Mr. Busbey.

Mr. BUSBEY. I want to compliment Dr. Traeger on his very fine and effective presentation of the subject, and I think I am speaking for the whole committee when I say we are sympathetic to your cause, and if you could ever get this country of ours out of these continuing emergencies, your case would be much easier to solve, I assure you.

Dr. TRAEGER. Well, as I told you gentlemen, if I just can make you aware of the need, I know that I can depend upon you to carry my message to your colleagues.

Mr. FOGARTY. Thank you, doctor.

Dr. McKhann, this is your first appearance before this committee.

STATEMENT OF DR. CHARLES M'KHANN

Dr. McKHANN. It is. I am director of the Cerebral Palsy Association. Up until a year ago I had spent my entire life since graduation from medical school as a teacher in medical school. I have been associate professor of pediatrics at Harvard and head of the department at Michigan and the head of the department at Western Reserve.

My interest in handicapping neurological disorders of children goes back about 25 years. One asks—may well ask—how long have you spent in this field? Almost full time in this type of work.

Up until the time that sulfa drugs and penicillin came along in the field of pediatrics, we were so busy trying to save the lives of children that we did not have time to work on these subjects which were of recurring interest to us.

Since the introduction of these lifesaving drugs there has occurred a great change in the whole field of pediatrics, so much so that children's hospitals no longer are full of children with pneumonia, meningitis, erysipelas, but the children's hospitals of the country are not now filled with children who have incapacitating disorders, so it is incumbent upon us to pay more attention to incapacitating disorders that our children may grow up to be useful citizens and not remain permanently a drain upon society.

Somebody must take care of them. The parents early begin to worry what is going to happen to this child when they are no longer there. If one of these children can be made into a useful citizen, it is certainly pleasant to the child to be self-supporting, it is a great reassurance to the parents, and it is undoubtedly the removing of a burden from society, a burden which will last as long as that child lives.

Furthermore, there has been as a result of these developments in the field of drug therapy for acute infectious processes a change in the life expectancy of these children with neurologic disorders.

It used to be a child with a severe neurologic disorder had a very short life expectancy, many of them 4, 5, or 6 years, but now, with their prompt response to hemotherapy when they have an acute infection, they have a normal life expectancy, which means that we have an increasing, numerically increasing, problem of handicapped children.

Among the handicapping disorders, none ranks perhaps higher than cerebral palsy in association with convulsive disorders and association with mental retardation. The three are integrated very closely as we see them in childhood.

One of the most unfortunate circumstances that exists is to see a child who is thought to have mental retardation who is not retarded at all, but has a pseudo retardation because people can't see through the crust of his neuromuscular handicap to see that he is a bright little lad underneath.

The magnitude of this problem to me is very great, so much so that because of the change in what I saw in my hospitals, hospitals with which I was connected for the last 6 years, I have devoted essentially full time to research in the field. That partly answers your question of earlier groups.

One does the best he can as he works along, but he soon becomes aware of the fact that if there were 50 of us working with the same type of person, presumably we would have 50 times as much chance of developing something worth while in this field, maybe more.

Mr. SCHWABE. It might be a geometric progression.

Dr. MCKHANN. It might very well be.

Now what is the situation with regard to cerebral palsy, and I would like also to include in my remarks some reference to mental retardation and convulsive disorders in children.

Can these things be prevented? I won't go through in detail the various stages of our knowledge concerning all the different types, different factors, but some of them could be prevented by education.

A fair proportion of the handicapping disorders of children could be prevented if knowledge now available were properly disseminated. However, the great bulk of these conditions could not be prevented without our present knowledge, and we must have research into prevention. This from the economic standpoint is most important, because although something can be done for almost every child with cerebral palsy and something can be done for almost every child with epilepsy, at least you can make his convulsion the less frequent perhaps, and maybe you can stop them entirely if you knock him down enough, so you snow him under almost, nevertheless we can't do enough for any one of these patients at the present time to render him a completely normal individual, a normal citizen.

He may be able to make his own way in the world, but he will not be as high as his inherited capabilities would permit him. So economically the greatest advance would be made if research were done on prevention, causation, and prevention of these disorders, bearing in mind again that a great many of these individuals who have an incapacitating neurological disease have a normal life expectancy and are dependent upon their family or upon society for many, many years.

However, we do not have adequate methods of prevention at the present time. I sincerely hope that money can be made available so that more research in this field can be undertaken.

What of the child who is here today? How big a problem is this? Well, there are about a half million, probably, of these persons, and I would think that about 50 percent of those would have a very good chance of being able to become useful citizens if present methods of treatment were available to them.

I get letters in my office every day from families who say their child has been diagnosed as having cerebral palsy and what can they do about it. Well, if they are in Washington, New York, or Boston, quite a lot can be done about it. If they live in Erie, Pa., or Warsaw, Ind., or some little town in central Illinois, the problem is completely beyond their scope, their resources.

So when it comes to the treatment of the patient at the present time, I may summarize my own views in the matter by saying that something can be done for the child, but that something is not enough.

However, we are not at the present time able to give most the children the something that can be done now. That is due to lack of trained personnel, so we have again the question of education and training in this field, so that we will have more personnel available to give the treatment that is presently known.

However, the treatment to my way of thinking is not satisfactory, and we need again further research in this whole field of incapacitating neurological disorders to improve our methods of treatment, our methods of diagnosis, our methods of rehabilitation of these patients.

Cerebral palsy is not a condition confined entirely to infants and children. It is a condition that may occur in people of older age. In older children it occurs as a result of infection.

We have encephalitis which is a disorder of the central nervous system closely related perhaps to infantile paralysis, except in infantile paralysis it attacks the spinal cord while the other attacks the brain.

In the older people we see the individual who develops a vascular disorder in his brain and becomes a shuffling old man, and the man who walks down the street—I can spot them now blocks away—that man has cerebral palsy. He got it perhaps as a result of direct injury, perhaps an automobile injury, or he got it as a result of changes occurring in the arteries of his brain as he grew older, and he has it in many instances not because his brain has been destroyed, but, as has been said just a moment ago by Dr. Traeger with regard to multiple sclerosis, these patients also can have remissions.

Another reason that I personally got interested in it is because I have in my own household a person with Parkinson's disease, and I have watched that person for 10 years to see how they go up and down, and one sees the variations and the conditions from day to day, and he is convinced that if he can hold this patient away, he is in his better days, he would have achieved a great deal.

I have prepared a little slip here which summarizes what I have said. The need in the field of chronic neurological disorders of children and adults is very great. To me it transcends that of almost any other field, and although I will admit that the greatest medical problem in America today is cardiovascular, because that is also a cause of cerebral palsy, the vascular part of it, as you may see.

But the neurologic disorders do not have the threat of death which one sees with cancer, for example. But they do have the threat of a great long period of incapacitation and unhappiness to the person and a great deal of unhappiness to the family.

I don't know what resources can be made available to our National Institute of Neurologic Diseases of Blindness, but I don't think that any greater action was taken by the Congress than when they established the National Institute. Now, I think their next problem is to support it so it can help the problem in childhood and it can help the problem in adults, and you never know, it may be helping the problem of some Members of Congress themselves.

Mr. FOGARTY. Thank you, Dr. McKhann. Your prepared statement will be incorporated in the record at this point.

95263—52——26

(The prepared statement referred to is as follows:)

UNMET NEEDS IN THE FIELD OF CEREBRAL PALSY

The great problem in the treatment of cerebral palsy today is the lack of trained personnel. This applies not only to cerebral palsy, but to the entire field of the handicapped.

If more children and adults affected by cerebral palsy are to receive an opportunity of becoming useful citizens, personnel in the fields of physical therapy, occupational therapy, and speech therapy must be trained.

However, present methods of treatment are far from satisfactory and research is necessary to develop a better understanding of the disorders with a view of discovering methods of prevention and improved methods of treatment.

Surgery, effective use of drugs, and a better knowledge of basic neurology are essential if progress is to be made in this field.

CHAS F. MCKHANN, M. D.

A BRIGHTER OUTLOOK FOR AMERICA'S CEREBRAL PALSIED

(By Dr. Charles F. McKhann, acting medical director, United Cerebral Palsy)

The great causes of death among infants and children have been or are being rapidly conquered and few indeed are the infants and children born today who need die in early life. It is obvious that more and more attention needs to be devoted to the incapacitating rather than killing diseases, so that children may grow up to be strong healthy citizens, mentally and psychologically normal and not handicapped by physical ailments. Many handicapped children now grow up to fall easy prey to degenerative diseases of later life or are often not able physically to assume responsibility in society or cannot adjust psychologically to their handicaps.

Among the largest groups of children with incapacitating disorders are those with cerebral palsy, sometimes in association with convulsive disorders and mental retardation. A very conservative estimate would be at least 1 in each 150 children has an incapacitating neurologic handicap consisting of cerebral palsy, singly or in combination with a convulsive disorder or mental retardation.

Thus, in a year in which 3 million babies are born in the United States, from 15 to 22,000 would have such a handicap. With additions to the group from postnatal injuries and illnesses, a quarter of a million children under 10 years, a half a million under 20 years, have cerebral palsy alone or cerebral palsy with retardation.

Can we with the resources available make these patients, especially the children, into useful citizens? While our achievements in the past year have been great they are not enough.

It is only with increasing interest among the medical and allied professions in the problems of handicapped children that progress will come—first in a better understanding of the disorders—later in development of better methods of prevention and treatment.

CAN CEREBRAL PALSY BE PREVENTED

Our second research symposium held on November 2, 1951, dealt especially with this subject.

Very few cases of cerebral palsy are due to hereditary causes. This is fortunate since hereditary defects in the brain cannot with our present knowledge be prevented.

While there can be no doubt that adverse conditions of oxygen supply, nutriment, infection in the mother may injure the developing brain of the unborn infant, the proportion of injuries due to these things in relation to the total number of defects due to other causes is small. Furthermore we do not at this time know how to prevent developmental defects.

Injury to the fully formed brain may occur before birth, but numerically the largest groups of handicaps in children, are due to injury or anoxia during the birth process. This is important because here much can be done in prevention. Indeed the work of many investigators indicates that birth injuries are singularly the second most important cause of mental defect and probably the first cause of cerebral palsy.

The contribution of Rh incompatability between mother and child has recently come into prominence as a cause of mental retardation and cerebral palsy in infants. Despite our best efforts in treatment many of these infants suffer severe and permanent damage to the brain.

Postnatal accidents, injuries, or infections contribute a sizable number of cases of cerebral palsy. Of all of these causes only injury at birth and postnatal factors are controllable in other than the exceptional case.

Thus any sizable reduction in the incidence of cerebral palsy must be obtained by the attack on these two factors—birth injury and postnatal injury and infection.

But while attempts are being made to prevent cerebral palsy, thus diminishing the numbers of these patients, what of the child already here? Is the palsied child denied access to facilities that might offer him a reasonable possibility of developing into a useful citizen? Are the existing facilities for the treatment of cerebral palsy satisfactory?

CAN CEREBRAL PALSY BE CURED?

Cerebral palsy cannot be cured. But the vast majority of patients could be educated and trained to useful lives, if centers and personnel were available to give to each child the benefit of known and established methods of treatment.

Additional facilities for treatment and habilitation of these patients are urgently needed. The majority of children with this disorder do not have access to present facilities.

The treatment must not only improve the physical condition of the child, but must enable him to adjust emotionally to his handicap; it must aid the family in acceptance of the child's condition and must educate the community to recognize and utilize the capabilities of the patient. Many families are not aware of just what can be done for their child and the community often rejects a potentially useful person. For the adult with cerebral palsy—and there are many adult patients—often new patients as a result of head injuries—vocational readjustment is a major problem.

However, even with the best treatment more could be done for the CP, if more knowledge were available concerning causation, prevention, early recognition and treatment—and better techniques were developed for speech, physical and occupational therapy— goals attainable through research.

Hence the needs in the field of cerebral palsy fall into two groups:

1. To make available to each patient the benefits of existing knowledge and techniques of treatment. This is a primary aim on a national scale of UCPA. For each patient rendered a useful citizen there will accrue a tremendous benefit to the patient, to his family, and to the community.

2. But the problems of cerebral palsy cannot be solved by present methods alone. The disorder must be prevented wherever possible and better methods must be found of treating the affected child or adult. To achieve these ends research and more research is necessary. Scientists throughout the country are being recruited by UCPA in the fields of neurology, pharmacology, physiology, pediatrics, orthopedics, psychiatry, and other branches of medicine, as well as in the fields of education, physiotherapy, occupational therapy, and speech therapy to attack the problem. All of these branches of science have taken cognizance of the problem of cerebral palsy. UCPA has aided this program by grants to support research in outstanding institutions, such as the Children's Medical Center of Boston, Harvard Medical School, Neurological Institute in New York, University of Utah, University of Illinois, St. Christopher's Hospital for Children in Philadelphia, and the University of California, as well as others.

Although the outlook for cerebral palsy is in many ways good, as a result of research, it must become better.

We must treat today the best we know how, with the hope that tomorrow we shall have the prevention and cure.

To make available to each patient the benefits of existing methods of treatment becomes a community responsibility and can best be carried out through the local cerebral palsy clinics. Each affected child in the community should be discovered and enrolled in a cerebral palsy clinic.

But the development of better methods, the research that will result in diminution of the number of cases or improve the outlook for the existing case must be achieved by a wider effort.

WHAT IS CEREBRAL PALSY AND WHAT IS BEING DONE ABOUT IT

I. What is cerebral palsy? (1)

Cerebral palsy has been defined as a group of conditions which affect the control of the voluntary motor system, and which have their origin in lesions of various parts of the brain. It is not a disease.

The condition is present at or shortly after birth, but may also result from a cerebral hemorrhage or as an aftermath of certain diseases incurred at any time in life.

Anyone may contract cerebral palsy without regard for race, economic standing or environment. There are no known preventives, and it is not hereditary.

(*a*) It can be recognized by awkward or involuntary movements, lack of balance, irregular gait, guttural speech, grimacing, drooling, which are some of the manifestations of cerebral palsy.

(*b*) Spastics are only one type of cerebral palsied. Four other types are the athetoid, ataxia, tremor, and rigidity types.

II. What are the main causes of cerebral palsy? (1)

1. Congenital malformation of the brain.
2. Injury to the motor centers of the brain before, during or any time after birth.
3. Incompatibility of blood factors.
4. Head injury or severe illnesses such as—encephalitis, scarlet fever, whooping cough, measles, and certain severe tropical diseases.
5. Cerebral hemorrhage.

III. What are additional serious aspects of cerebral palsy? (1)

Cerebral palsy is a very real social problem with medical aspects. Most of the parents, when they first learn that their child is so afflicted, sustain a feeling of guilt that one of them may have been at fault through a hereditary defect.

The resulting maladjustment between the parents, their attitude of overprotection or rejection of the handicapped child, and their attitude toward other children and members of the family, have caused much additional anguish.

Therefore, it is apparent that the psychological implications of this condition cry out for help with as strong a voice as the medical and educational needs of those affected.

IV. How many people die of cerebral palsy in the United States?

Cerebral palsy is not in and of itself a cause of death, but a condition as described on page 1. The cerebral palsied individual has a normal life expectancy (1).

It is, of course, undeniable that a needed medical research program on the causes of cerebral palsy, which are frequently from cerebral hemorrhages, may do much to cut down deaths from cerebral hemorrhages (1). According to the National Office of Vital Statistics, 156,513 people died in the United States in 1950 from vascular lesions affecting the central nervous system, which classification includes deaths from cerebral hemorrhage (2).

V. What was the military manpower loss in World War II from neurological diseases, including cerebral palsy?

Of the 4,828,000 men rejected before induction as of August 1, 1945, by the Army, 235,400, or nearly 5 percent, were rejected because of neurological diseases (3).

This manpower loss would be sufficient to man 16 Army infantry divisions (World War II strength, 14,477).

VI. How many people are suffering from cerebral palsy in the United States? (1)

Incomplete surveys indicate that 550,000 Americans now alive were born cerebral palsied, and in addition, untold hundreds of thousands become affected through various causes in later years of life.

The case load of cerebral palsied persons is growing steadily. With unrelenting regularity, about 10,000 babies are born with cerebral palsy annually—one every 53 minutes.

American servicemen become cerebral palsied as a result of wounds while they fight for freedom.

Adults of all ages acquire the condition through automobile accidents, industrial mishaps, seven illnesses, strokes, and other causes.

VII. What is being done to help cerebral-palsied suffers? (1)

Meager information available indicates that a number of States have instituted cerebral palsy programs. Some of these are: California, North Carolina, Michigan, New Jersey, in addition to New York. Almost every State has at least one or more organizations of parents of the cerebral palsied.

This movement of providing facilities for education, coupled with the various therapeutic treatments, is only beginning to gain momentum. It is still one of the many great unmet needs. Coordination and exchange of information, as well as definitive complementary, private, and governmental work is vitally needed.

VIII. How much money has the United Cerebral Palsy Associations raised for education and service to cerebral palsied persons and for lay and professional education in this field?

In 1951, the United Cerebral Palsy Associations raised $2,100,000 (6).

IX. How much money is available for research to find new treatments and cures for cerebral palsy?

Approximately $480,359 is available for research in this field in 1951.

(*a*) Government funds: To date, the National Institute for Neurology and Blindness of the United States Public Health Service has spent $81,489 of its 1951–52 research funds of $1,015,000 for research in cerebral palsy. By June 1952, the sum will probably reach $100,000. $73,714 in cerebral palsy research money is being spent from the budget of the National Institute for Mental Health, but the funds are administered by the National Institute for Neurology and Blindness. This is a total of $155,203 from the two institutes (7).

(*b*) Non-Government funds: Voluntary agencies have allocated approximately $325,156 for research in this field, as listed below (8):

United Cerebral Palsy Associations, Inc	$160,756
Cerebral Palsy Association of Connecticut	6,000
Cerebral Palsy Society of New York City	0
Association for the Aid of Crippled Children	5,000
State of New York—Maintenance of Edith Hartwell Clinic, Leroy, N. Y.	[1] 95,000
National Foundation for Infantile Paralysis	[1] 58,400

[1] The item of $95,000 for maintenance of the Edith Hartwell Clinic is estimated. $25,356 of this amount is a grant from United Cerebral Palsy Association. This item and the item of $58,400 for the National Foundation for Infantile Paralysis were reported by Dr. Plato Schwartz, Strong Memorial Hospital, Rochester, N. Y. Also this amount was given for polio, cerebral palsy, and related disorders.

X. How does this compare with what we spend on other research?

In contrast to the $480,359 being spent for research in cerebral palsy, the following is being expended in research in other fields:

(*a*) The National Foundation for Infantile Paralysis allotted for research in the field of infantile paralysis in 1950, $2,300,658 (4).

(*b*) In 1950, the Department of Agriculture actually spent for the control and eradication of hoof-and-mouth disease in animals, $40,566,197 (5).

XI. What are some of the problems in cerebral palsy which require research? (1)

1. Use of drugs.
2. Relationship of RH factor in the blood.
3. Development of surgical methods of treatment.
4. Special psychological testing methods.
5. Relationship of right and left handedness to the disabilities of cerebral palsy.
6. Investigation of brain pathology in cerebral palsy.
7. Study of prenatal period.
8. Obstetrical problems in anesthesia, instruments, anoxia, and the mechanics of labor.
9. Early postnatal period.
10. Classification of types of cerebral palsy.
11. Research in treatment.
12. Reeducation of undamaged parts of the brain to take over the functions of the damaged part.
13. Special methods of physiotherapy.
14. Special methods of occupational therapy.
15. Special methods of speech therapy.

16. Special methods of functional therapy.
17. Treatment of the child as a whole.
18. Research in apparatus and orthopedic equipment.
19. Research in visual difficulties.
20. Research in hearing testing.
21. Research in convulsive seizure control.
22. Research in methods with regard to psychological factors in convulsive seizures.
23. Research in connection with allergies.
24. Research in nutrition, fluid balance.
25. Research in useful methods of education.
26. Research in differences in educability of the mentally normal cerebral palsied child from the otherwise normal child.
27. Research in the psychological problems of the cerebral palsied child and the problems of the adult cerebral palsied.
28. Research in psychological effects of cerebral palsy on the families.
29. Research into methods of training personnel.
30. Research into types of centers of treatment.
31. Research into neurological surgery on the brain.
32. Research into orthopedic surgery on the extremities.
33. Research in revascularization operation.
34. Research in records and measurements of improvement.

XII. Constructive steps to be taken (1)

1. Special training of medical personnel (doctors, nurses, and therapists).
2. Special training of educational personnel (teachers, psychologists, and social workers).
3. New facilities:
   More treatment centers must be established.
   More clinic-schools must be set up and equipped.
   More rehabilitation schools must be established.
   More facilities for adults for vocational guidance, training, placement, and social opportunity.
   More residence rehabilitation schools must be established.
4. It is essential that a larger Federal appropriation be made to provide funds to establish a Nation-wide research program in neurological diseases, including cerebral palsy, under the newly established National Institute for Neurological Diseases and Blindness.
5. Establishment of centers which coordinate orthopedic diagnosis, and provide integrated programs of diagnosis, treatment, education, psychological testing, research, and training of personnel.

REFERENCE LIST

(1) Information obtained from the United Cerebral Palsy Associations, Inc., 50 West Fifty-seventh Street, New York 19, N. Y.
(2) National Office of Vital Statistics—this is a provisional figure—final 1949 mortality data not yet available.
(3) Selective Service System, National Headquarters, Chart "Estimated principal causes for rejection of registrants 18 to 37 years of age in class IV–F and classes with "F" designation, August 1, 1945."
(4) National Foundation for Infantile Paralysis, figures for 1949.
(5) Budget of the United States, Department of Agriculture, fiscal year ending June 30, 1952.
(6) New York Times news release, October 24, 1951.
(7) National Institute of Neurology and Blindness, United States Public Health Service, Bethesda, Md.; administrative officer.
(8) Letter dated January 16, 1952, from United Cerebral Palsy Associations, Inc., 50 West Fifty-seventh Street, New York 19, N. Y.

Mr. FOGARTY. Dr. Gordon, you have appeared before this committee before, so you are no stranger to it. Doctor, will you state to the committee your background?

Statement of Dr. Dan Gordon

Dr. Gordon. I am assistant professor of ophthalmology at Cornell University, chairman of the Medical Board of the National Council to Combat Blindness, consultant to the Surgeon General of the United States Public Health Service, consultant to the Council on Ophthalmology of the American Medical Association, and a member I think of the leading eye societies.

I have a prepared statement which I will give for the record.

(The statement referred to is as follows:)

Qualifications of Dan M. Gordon, M. D., New York

Graduate of the School of Medicine, University of Michigan 1932.
Diplomate of the American Board of Ophthalmology.
Fellow of the American College of Surgeons.
Fellow of the American Academy of Ophthalmology and Oto-Laryngology.
Fellow of Pan-American Ophthalmological Society.
Assistant professor of Clinicial Surgery (Ophthalmology) Cornell University Medical College.
Assistant Attending Staff, New York Hospital.
Chairman of the Medical Board of the National Council to Combat Blindness.
Member of the American Medical Association and New York State and New York County Medical Societies.
Fellow of the American Medical Association.
A pioneer in the introduction of ACTH and cortisone into ophthalmology.
Authority on night blinding diseases.
Member of the National Advisory Institute of Neurological Diseases and Blindness Council.
Author of various ophthalmological articles.

Statement Submitted by Dan M. Gordon, M. D.

Much of what I say today is but an amplification of statements made before this committee a year ago.

Because of the wide extent of the field of blindness, and its problems, I shall devote no time whatsoever to the subject of routine care and rehabilitation of those presently blind.

The Federal, State, and county governments spent, during the fiscal year of 1948, $38,540,000 on blind people, as contrasted with the $70,340 spent by the Government on eye research, up to that period. During the fiscal year 1951–52 the latter figure was increased to $254,097. Using the figure of $60 per month as the contribution of governmental agencies toward the blind, for care, the 22,000 new blind each year add approximately, $1,584,000 to the tax burden annually, without considering the fact that the burden accumulates with each successive year.

I shall attempt to enumerate only a few of the problems of blindness which face us as physicians or civic minded citizens.

1. Practically all of the emphasis in the field of blindness has been placed upon rehabilitation rather than research into the causes and cures of blinding diseases.

2. The dearth of research funds with consequent lack of research, has meant that we are still ignorant of the causes (as well as the prevention) of most of the major eye diseases including glaucoma, cataracts, retrolental fibroplasia, uveitis, retinitis pigmentosa, the diabetic retinopathys, etc. Paradoxically, research in pediatrics which has resulted in saving many premature infants who would normally have died, has at the same time resulted in a certain percentage of these prematures developing a blinding eye disease. It will require considerable research to solve this problem. There are approximately 1½ million people in this country suffering from diabetes; every one of whom is a potential candidate for a crippling eye disease. As a result of the discovery of insulin the young diabetic, who would have died prior to 1922, is now being kept alive—in order that he may later go blind.

3. As a result of lack of funds, there is a marked scarcity of much of the basic equipment as well as of men properly trained in the basic sciences. Both of these are absolutely essential to any well-planned attack upon the basic problem of eye research. For example, any good research program involving diseases of the inner eye such as diabetes, high blood pressure, etc., demands the use of a fundus camera for the making of photographic records of the inside of the eye (retina and optic nerve). There are approximately 77 ancient prewar German cameras of that type in this country. Many of these are no longer functioning or are in the hands of private individuals. Recently, a new fundus camera has been designed, costing approximately $1,900. There are only 166 hospitals in this country which train physicians in the field of ophthalmology. Well over 100 of these lack fundus cameras; at least $190,000 would be necessary to fill this need. Practically all of these institutions lack equipment for the study of dark adaptation. These instruments cost approximately $1,500 each. Hence, it would cost $187,500 simply to furnish this equipment to 125 eye departments. Assuming that a single technician could be trained to operate both of these instruments at a salary of $50 a week, additional cost of $311,500 would be necessary to insure adequate operation of this vital equipment. Very few of the eye departments in our medical schools are headed by men who devote any considerable amount of their time to these departments. This is because the average medical school just cannot afford full or even half-time men in these fields. At $25,000 per department, it would take $1,625,000 per year alone to remedy this defect in 65 schools.

4. At least 150 fellowships for advanced training in clinical ophthalmology and the basic sciences should be available each year. This would mean about $750,000 for the first year—and $1,125,000 per year thereafter, since most of these would be on at least a 2-year basis.

5. Certain projects are "must projects" in ophthalmology—the most pertinent of these are in the fields which would reduce our blindness rate with consequent return to productive life of many who would otherwise go blind—and with consequent savings in welfare aid. About 25 percent of blindness is due to inflammatory disease. Proper exploration of existing new treatments and dissemination of this knowledge have cut into this group considerably and will continue to do so. This is one most important contribution we ophthalmologists can and have made to the war effort, as these are leading agents in causing blindness among soldiers without trauma. Traumatic blindness which may result in sympathetic ophthalmia is another fertile field which is responding to ACTH and cortisone. This field of inflammatory eye disease has, as a result of Government-financed research, become one of the brighter spots in the field of blindness. Permit me one example. As a result of two Government grants, totaling $25,000, the eye department at Cornell has treated approximately 1,000 patients of whom approximately 600 have been saved from blindness. Considering that each blind person has an added income-tax exemption of $600, this project alone has saved the Government the tax on $36,000. Add to that at least $60 per month which each blind person costs governmental agencies and this project has resulted in monthly savings here of at least $36,000 more per month. This demonstrates that intensive research pays.

6. The lack of trained research workers and the facilities required for intense investigation into the fundamental causes and treatment of blinding diseases is a blot on our civilization. It is doubtful that there are six well-equipped eye research laboratories in the United States, and those existent lack men, dollars, and equipment.

7. There is some evidence that existing knowledge in the field of electronics might ultimately be applicable to the field of blindness, and that eventually it might be possible to produce equipment which would enable the blind to get around without any other help. It is entirely possible that the future may even see a device that might transmit rays of light to the visual cortex of the brain in a blind individual. While research of this type might cost billions of dollars it would more than pay for itself in the rehabilitation of blind civilians and soldiers.

I could enumerate many other important "musts" in the field of blindness. However, I shall devote my time to the outlining of the work which the institute should initiate in its first year:

1. Provide 25 training fellowships at a minimum cost of $125,000.

2. Provide for rapid dissemination of recent advances in the field of ophthalmology through educational means, especially by sending experts to those areas which are not supplied with medical centers, $25,000. For example, it is an amazing fact that after over 2 years of ACTH and cortisone comparatively few physicians are skilled in their proper use. Education here it vital.

3. Set aside $100,000 to provide essential equipment necessary to research in certain selected centers which could be expected to function more efficiently with such help. These latter would of necessity be in the poorer or less populated areas, for the most part.

4. Set up disease detection centers, model clinics and treatment centers in areas which require them. This would require a minimum of $250,000 initially.

5. Follow up the initial successes obtained in inflammatory diseases with ACTH and cortisone. This would require at least $500,000 exclusive of hospital and laboratory costs, and is most essential to the war effort. Already newer hormones are in the research phase and others are on the "drawing board."

6. Initiate intensive investigation into the handling of the type of traumatic cases common to military and industrial life; as lacerations, burns, retinal detachments, plastic and prosthetic repairs, and sympathetic ophthalmia. At least 15 such projects with a minimum total cost of $450,000 are essential.

7. Support intensive investigation in the fields of diabetic eye diseases, cataracts, glaucoma, retrolental fibroplasia, and retinitis pigmentosa. A minimum of 15 such projects would cost a minimum of $500,000.

8. A minimum of $100,000 should be devoted to investigation in the basic sciences as related to ophthalmology; anatomy, histology, pathology, neuro-ophthalmology, physiology, biochemistry, etc.

From the above it can be deduced that a minimum of $3 million should be devoted to initiating a successful attack on blindness, along a broad front. I have not included any sum for the work on electronics which would probably require an initial outlay of about $500,000, nor have I had time to point out the important direct and indirect interrelations between the fields of neurology and ophthalmology. I have made no provision for the financing of the numerous original (and at the moment anticipated) projects which are arising at all times; such as was the case when ACTH and cortisone suddenly came on the medical scene.

Dr. GORDON. First of all I would like to mention the fact that the Institute of Neurological Diseases and Blindness is actually two institutes rolled into one, and therefore merits double consideration from the monetary point of view.

For technical reasons which you gentlemen know better than I, the institutes were combined in their formation. I have just come from examining one of your colleagues in the House who was very badly disabled visually at this moment because of diabetes, and that highlights the need for research.

There are between one and a half and two million diabetics in this country, and having discovered insulin; we are now saving many of these young diabetics who would have died at the age of 5, 6, 8, or 10, and permitting them to grow up, upon which they develop diabetic changes in their eyes in the way of hemorrhages such as your colleague is unfortunately having, and we know absolutely nothing of what to do about it. Furthermore, because of lack of funds and because of lack of money to train research personnel I know not a single full-time project on the subject of the diabetic eye disease that is now going on.

In my own small way I am trying to do a little. There are other men in their own small way trying to do a little in that direction, but the money just is not here for a full-time team.

You brought out the subject of arithmetical progression. Five or ten trained men, one a chemist, one a biochemist, one a physician, one a diabetician, one an eye man, and so on can do much more than 50

single eye doctors, but the money is not available at the moment to finance it.

With the present pittance—and I hate to use that word, but it is correct—available for the Institute of Neurological Diseases and Blindness, there is something less than perhaps a quarter of a million or about a quarter of a million available this present year for eye research, and there are many problems which are even more important than diabetes in the field of blinding eye diseases. That simply highlights that one fact.

My university was the subject or recipient of $25,000 worth of grants from this Government when it was financing the original ACTH work, and I think it might be concrete to discuss a few figures to see what we have done with this money in our own very small way to see what can be done with research funds.

ACTH, cortisone, and now we are working with compound F and next week I am starting with two other hormones, have been very dramatic in my field and in the field of rheumatism as Dr. Traeger has alluded to.

My department has treated approximately something over one thousand people with blinding eye diseases in the past 2½ years since we started this project, and during the first few months of that we did not know how to use ACTH and cortisone, or I think we could have done more. We have saved approximately 600 people, 600 of that thousand from blindness, one of whom is in this room.

Now what does that mean from a monetary point of view? What did we do with this $25,000? We still have about $500 worth of drugs on hand remaining from that grant. Each of those patients is entitled to a $600 a year deduction, additional deduction, in his income tax, so 600 times 600 is $36,000 of annual income-tax savings to the Government, toward that $25,000, and each of those people would receive a minimum of $60 a month from Federal, State, or local tax-collecting agencies toward their care.

That means again we have saved these agencies a minimum of $3,600 a month in expenditures to these people whom we have saved from blindness, and I won't go into the fact that we have put them back to work, the misery that we have saved them and their families and the fact that they are paying taxes instead of being benefited by tax-collecting agencies; so that in a very small way shows what can be done with research money.

Now why am I and why are we here today? From the point of view of the blindness field and it is true of the rest of the fields in the sense, practically all of the private organizations for the care of any disease or the investigation of any disease are started by parents of afflicted children or by relatives or by friends. They put up the initial money as a rule, and they are the ones who go out and campaign for funds to build up these private agencies to investigate these diseases.

Unfortunately, in my field, that of blindness, we have the bad situation that the parents and the relatives and friends are not interested in prevention. There is nothing dramatic about research; there is nothing dramatic about saving an unborn child from blindness or saving any man in this room from getting blind, if he is fine at the moment. There is nothing dramatic about it.

It is hard to sell people that. They want to know what you are doing in a concrete way, and so these people are interested for the most part in rehabilitation agencies, those which teach their children braille or teach them play or teach them how to do things with their hands and so on, get them seeing-eye dogs.

All these are very fine. But that does not prevent other people, including members of those families, from going blind. And we have found that in attempting to get private funds we run into that stone wall.

Those people who actually have a selfish interest because of a friend or a relative being afflicted are giving the bulk of their money, if not all of it, to rehabilitation agencies, and even they cannot get enough, so we have got to come to you for more money.

Now as people live longer, they live to develop diseases, among which they develop blinding eye diseases. This works from the cradle to the grave. Dr. McKhann will tell you that, as a result of expensive investigation in the treatment of premature infants, they are now keeping many of these infants alive who would formerly have died, who died when I went to medical school and when you went to medical school, but up to one in seven of these prematures develops a blinding eye disease, about which we know absolutely nothing, and in some cities the statistics on premature infants weighing 3 pounds or less at birth is almost one in two developing blindness. These kids grow up. We are just feeling the impact.

This is a disease that was not in the medical books something like 10 years ago. We have got all these kids now that need support, and we don't know a thing about what to do about it, and it is tragic.

At the other end of the scale, we have diabetes all the way up the scale, gloucoma. We have cataracts. Something new has just come out in the way of cataracts in the last 2 or 3 weeks. It will take millions of dollars to train eye surgeons in this new technique, if it is good.

Mr. FOGARTY. What is that?

Dr. GORDON. That is a technique described by Dr. Ridgley in England in which instead of removing the entire lens—cataract is a disease of the lens of the eye—he opens the sac or capsule in which the lens is clothed, opens the front of it after making an incision in the eye, cleans out all of the lens material that he can get out, and then puts in a little plastic lens, and he has done this on 25 people over a period of 3 weeks, and 22 have worked.

That is not a big figure, but if this thing clicks, it is going to mean—it is a delicate procedure, and not everybody will be able to do it. The men who will do it will need special training. It in turn, just like keeping the premature alive, will probably bring other situations which will require treatment.

Mr. FOGARTY. What about the advances made in glaucoma?

Dr. GORDON. Nothing; practically nothing.

Mr. FOGARTY. I remember we talked about that a couple of years ago.

Dr. GORDON. Practically nothing. I myself think I have an idea for it, but I could not conceive of less than an item of 10 men working on it. It will take a fortune.

Mr. FOGARTY. Is that on the increase now?

Dr. GORDON. Yes. All of these things are on the increase because of the fact that people live longer, and then in the case of glaucoma, the emotional situation of the world and of people apparently brings it on.

Glaucoma is in a sense an emotional disease. It is not entirely, it is inherited, but I have done some work with a psychiatrist, some work which was never published, and we can definitely bring on attacks in these people by discussing their emotional situations. It is a very complex thing. We know absolutely nothing about its origin. We know a little bit about its treatment and nothing about its cure.

Mr. FOGARTY. I remember you talked about your work in ACTH and cortisone a year or two ago.

Dr. GORDON. That did not work.

Mr. FOGARTY. What type of a blindness disease was that?

Dr. GORDON. This morning the mother general of one of the Franciscan orders called me. She is coming in tomorrow.

Here is a woman whose one eye went sour after an operation by someone whom I never heard of and probably was not competent to do it, as a result of which she developed an inflammation in her other eye and could not see, and finally wound up in my hands, and on cortisone she has better than normal vision. She is busy at work and able to work running this very large convent up near Peekskill, and is perfectly well, back at work, and so on.

I can't cure her, but by continuing to treat her with cortisone, I can keep her at work, and I have every expectation of doing that for the rest of her natural life.

Our greatest success has been in the inflammatory eye diseases. Multiple sclerosis, we can do a lot for the blindness produced by it, but at the same time the ACTH does not touch any of the other symptoms of multiple sclerosis. The patients can still be bedridden, although we can make them see.

Inflammation of the good eye following injury to the other eye, that of course has become very important with the war in Korea, and the Army of course is using ACTH and cortisone. That has been a big contribution.

I forgot to say that in addition to the concrete results which I showed you in our $25,000 which the Government gave us, the educational value of our papers and our talks about this before medical societies and medical groups here and abroad have saved even more people, and yet only last week I got a girl who was blind in one eye and had an acute inflammation of the other eye which has responded very well to cortisone, who went to an eye doctor in Brooklyn—everything happens in Brooklyn, it seems—and was told that cortisone was outlawed in the treatment of eye diseases; so considerable education is still necessary. The average man practicing still doesn't know the score on these things. It is a shame, but it is true.

Mr. FOGARTY. Mr. Schwabe.

Mr. SCHWABE. He is busy in other things and can't keep up on everything perhaps. The specialist may overlook some of these things himself, so you hope by effort to keep them abreast of these things; isn't that so?

Dr. GORDON. Yes. Well, we sometimes have to bring the mountain to Mohammed. We have to go to him; go to his medical societies; take him out forcibly.

As a matter of fact, I contacted the two makers of cortisone that same day—I am doing research work for both of them at the same time, not letting one know the other's secrets, because we are trying to do combinations—and said, here is a man I think you ought to have your detail men go out and teach. If we miss him at the medical society, perhaps we can catch him that way.

Mr. SCHWABE. Regardless of what business they may be engaged in, or in what profession, medical included, they just simply do not keep up with the procession.

Dr. GORDON. That is too true, but if the patient reads about it in the papers, he is going to come in and say, what about this thing I just read about and therefore if anything is in the papers, I have got to read about it even if I am not interested, because my patients say, "What about this new operation?"

Mr. SCHWABE. You are the man who keeps abreast, though, or the type who does. I am speaking about the one who does not keep abreast. He dodges or equivocates when his patient says, "Here is what I saw in the paper."

Dr. GORDON. That is very true. Part of the thing that I have in here if I recall correctly is the need and eventual organization of teams of specialists to go out into the rural areas and see these patients for the doctors who can't do anything for them. I think that is very important.

Mr. SCHWABE. It would take a lot of teams in every line all over the country.

Mr. FOGARTY. There are a great many people who don't read papers in this country.

Dr. GORDON. I think the average patient may be ahead of his doctor.

Mr. FOGARTY. I think I read quite a few, but I had never read of your work in this field until I heard you tell about it 2 years ago.

Dr. GORDON. We made the New York Times with our first paper, made the first page of the Sunday Times. We don't ask for publicity, but there have been so many articles on ACTH and cortisone——

Mr. DENTON. Of course, some papers don't carry as much news as the New York Times.

Dr. GORDON. I have a patient who has two sons in South Africa. I have been treating her for some time, and fortunately or unfortunately my name was mentioned in Paul DeKriff's article in the Reader's Digest, and she came in with a letter from her son enclosing this clipping from the Reader's Digest saying she ought to look up this doctor—Dr. Gordon in New York. She already had.

It is amazing. People who know someone with an affliction will tell them about these things and send them clippings. I think that any physician will bear me out on that.

Mr. FORAGTY. But the amazing thing about it is that you have had definite results with these patients you treated. 600 out of 1,000.

Dr. GORDON. The figures are probably a little better than 600, but I am just using an approximation. The new compound F, I thought would be excellent in inflammatory eye diseases, but so far it has proved absolutely useless, and yet in the allergic eye diseases, for which we had previously no good treatment, it has been dramatic beyond words. I have had kids going back to school who haven't had their eyes open wide enough to see for years.

Mr. FOGARTY. You never know until you try it.

Dr. GORDON. You don't know until you try it. You can't figure it out in advance.

Compound F theoretically should have been better than cortisone on inflammation, but it is not, and yet it is much better than ACTH and cortisone in some of these allergic eye diseases.

Mr. FOGARTY. Do you have anything further to say, Doctor?

Dr. GORDON. No, I have got it in my statement.

Mr. FOGARTY. Thank you very much, Doctor.

I regret that time and circumstances do not permit us to personally hear everyone who is interested and has suggestions and information to offer in this field, however, there are a few statements which have been presented to the committee that I think will be of value to other members as well as to the committee. I therefore place them in the record at this point.

(The statements follow:)

STATEMENT OF MRS. GARVIN TANKERSLEY, PRESIDENT OF THE NATIONAL EPILEPSY LEAGUE

Mr. Chairman and gentlemen of the committee, my name is Mrs. Garvin Tankersley, president of the National Epilepsy League, with offices in Chicago, Ill.

We can especially appreciate the problems of the National Health Institute on Neurological Diseases and Blindness, because we also are a young organization, supported by voluntary contributions, but struggling with a formidable array of problems associated with a major health problem estimated to affect 800,000 of our fellow citizens.

I feel a great responsibility in presenting this testimony because I am conscious that I am trying to tell you the story of the hardships and needless handicaps of a large group with a health problem who cannot speak for themselves. You have not received an avalanche of letters from sufferers from epilepsy because of the stigma associated with the illness. The social consequences of becoming known in their own communities as an epileptic discourages such correspondence. In the past, and today, the fear of loss of job and social rejection deters the person with a first-hand knowledge of the illness from making his problems known and demanding that something be done about them.

Through correspondence with over 25,000 people with epilepsy and their relatives in the last 3 years, we know the problems of these people. They are serious, heartbreaking problems affecting the whole fabric of family life and relationships. They are the kind of problems that result when the mere diagnosis of the illness becoming known is sufficient to exclude a child, mentally alert and otherwise healthy, from opportunities for a public-school education, may result in the loss of a job by a conscientious hard-working employee, and social ostracism for the families of such persons.

I would emphasize that those tragic results are not uncommon or occasional happenings to victims of this disorder. They are the usual consequences of the illness today in every State, and in every city, village, and rural community of every State. Even more tragic is that we know such serious sequellae are unnecessary. Epilepsy is treatable in over 75 percent of the cases. Seizures could be controlled to the point where they do not interfere with opportunities for a normal self-supporting existence in over three-fourths of the cases if modern medical treatment were available in all communities. This has been demonstrated by a few poorly supported demonstration projects in Chicago, in Boston, in New York, and in 21 other anticonvulsive clinics in 17 States. Unfortunately, this modern miracle of medical research and science is available to only 10 percent of the sufferers from the disorder through such clinics struggling with limited budgets resulting from public apathy, ignorance, and unconcern.

All of us closely connected with epilepsy believed that the passage of Public Law 692, establishing the National Health Institute of Neurological Diseases and Blindness, by Congress in 1950, was a great stride forward in efforts to end the needless handicapping of so many of our citizens. We saw the economic waste and unsoundness of plans to encourage the development of separate "splinter" institutes for individual neurological diseases even though many of us were

concerned that the lumping together of all neurological diseases and blindness—illnesses affecting an estimated 20 million people—might result in less than adequate appropriations to deal with such a multiplicity of important health problems.

Last year about $1,200,000 was appropriated for the first year's work of the new Health Institute. That was not so bad; indeed, it could be considered sound procedure, inasmuch as the money was largely needed to finance the planning stage of the new program. It is our understanding, however, that this planning stage is now over. The careful planning carried on last year indicates $8,000,000 is needed to finance the minimum program needs of the Health Institute on Neurological Diseases and Blindness for the next fiscal year. In our opinion, it is inexcusably wasteful to appropriate less than enough money to carry out even a minimum of the plans we spent over a million dollars to develop.

We believe the National Health Institute of Neurological Diseases and Blindness needs sufficient funds for the following activities in epilepsy this year:

1. It needs funds to meet the continuing operating costs of the National Institute including administration and expense of meetings of the National Advisory Council, fellowships, traineeships, and rehabilitation and research grants.

2. Additional funds are needed to disseminate modern medical information about treatment of epilepsy to physicians and general practitioners throughout the country. A member of our medical advisory board prepared a list of physicians known to be interested and presumed to be informed about modern medical treatment of epilepsy. There are only 88 names on this list! The Physicians' League Against Epilepsy contains in the United States only 317 names on their list of members. Without the dissemination of this information the great majority of persons with epilepsy are enable to procure medical care, which can substantially help them and put them in the category of normalcy and self-support. Members of our medical advisory committee estimate that the nonspecialist physician could treat 70 percent of the cases of epilepsy effectively if modern treatment methods were known to him.

3. There is a vital need for a good ambulatory out-patient treatment service on epilepsy in every State to provide treatment for the 30 percent of epileptics who cannot be easily controlled by the known and proven modern medications. Presently, there are only 24 such clinics in 17 States. Such consultation clinics would serve not only as treatment resources for the difficult cases but also as research centers and as teaching and training centers. The National Epilepsy League has demonstrated in Chicago, through their aid and promotion of the clinic at the University of Illinois, the tremendous value of such clinics.

4. The present appropriation for research can only cover the most important medical research. The budget does not allow for the very needed grants to encourage research in the social and educational aspects of the illness.

5. The National Epilepsy League has interested many groups throughout the country in helping it with its public-education program. The importance of this phase of the program in epilepsy cannot be overemphasized. After seizures have been brought under control by medicine, the problems of the child and adult with epilepsy, those of his family, are by no means over, as you might logically assume. If he has already become known as an epileptic in his community, it is likely he cannot return to the public school, the companionship of his friends, or to his job. In some States he cannot drive a car even after a prolonged period of freedom from seizures. He cannot obtain employment in a civil-service position on any governmental level. Needless to say, such frustration may lead to the development of serious emotional and psychological problems of more concern and more difficult and expensive to handle then the seizures themselves. Effort to assist in the physical rehabilitation of the epileptic must go hand in hand with efforts to replace the myths and superstitions that make up the stigma associated with the disorder with modern up-to-date information about the illness.

We believe money expended by the Federal Government to encourage research, training and teaching facilities and the development of needed programs through grants-in-aid to the States in epilepsy will bring immediate returns and savings to the taxpayers. Such preventive programs are much less costly in dollars alone than necessary expenditures to support victims of the disorder in institutions providing custodial care and/or public-assistance grants. In a world where our relative low ratio of manpower is rightfully a cause for concern, we believe an intelligent expenditure of funds to restore opportunities for a self-supporting existence to 800,000 of our fellow citizens should be given high priority.

STATEMENT OF THE ASSOCIATION FOR THE ADVANCEMENT OF EXCEPTIONAL CHILDREN OF WASHINGTON, D. C.

The victims of neurological diseases cannot well speak for themselves. This association has asked permission to make a statement on behalf of one class of such victims—brain-injured children—because we believe our experience qualifies us to speak with authority about them. There are such children in the homes of most of our members, and we have seen from day to day the meaning of mental retardation in them. It means a child struggling desperately to keep up with his generation, and failing without understanding why. It means that his normal brothers and sisters are set apart from their schoolmates and that his family is set apart from its neighbors. It means heavy and continuing expenses for special medical consultations, special care, special training, and special treatment.

Our members themselves have no axes to grind in this hearing. Even if the institute's research program is carried through on the modest scale proposed, our own "exceptional" children's chance for a normal life is already gone in most cases and will probably be gone in the rest long before this research program can produce the results that would save them. Our present aim is rather to insure that our country profits by our experience, in trying to protect itself from social consequences of neurological disease in the future.

To make our position clear, it should be explained that our members are themselves perfectly normal citizens and taxpayers, fully as successful as the average in their business and personal lives. The brain damage of one child in most of their families is a biological accident such as happens at random—so far as medical science now knows—perhaps once or twice in a hundred times.

The reason we take your time and ours for this statement is that we see a deadly parallel between the situation of our member families and that of our country. Both are straining to support individuals physically or mentally unable to support themselves. We know the strain at the family level. You gentlemen know it at the national level, from the statistics of selective-service rejections and industrial manpower and the huge annual cost of institutional care.

Many of our association members buy peace of mind now, while they are still able to protect their crippled children, by closing their eyes to the fact that some day they will be unable to keep on. Our country cannot afford so to close its eyes to the future, while the manpower base which supports our national standard of living and defends us against foreign enemies grows steadily narrower in relation to our population. We must take a longer view, as a nation. If we are not to solve the problem in the traditional way by letting them die of neglect, we must find another means to keep down the proportion of cripples. Such, in practical terms, is the goal of the institute's research program for those crippled by neurological disease. Realization of this goal seems to us literally a matter of national survival.

STATEMENT OF DR. WINTHROP M. PHELPS, MEDICAL DIRECTOR, CHILDREN'S REHABILITATION INSTITUTE

There has been in the last few years a great increase in the interest of cerebral palsy as a major cause of crippling among children and adults. This has been the result of the gradual discovery that there are effective methods of treating these children and returning a large number of them to their normal place in society.

The methods of treatment, however, require special training and extensive techniques, which, unless they are thoroughly learned, are not effective. It is, therefore, of the greatest importance that the highest standards of training of personnel be adhered to.

The reason for failure of success in the past has been due to the lack of sufficient training on the part of the personnel dealing with these children. This personnel includes physical therapists, occupational therapists, speech therapists and doctors specially trained in the specialties pertaining to crippled children, but in addition to this fundamental training, it is essential that they have postgraduate work in cerebral palsy in order to produce the desired results.

The previous results which have been obtained in the last few years in the hands of this highly trained personnel have been so satisfactory that this, in itself, has brought about the great interest in the care of these children and adults. The pioneer institution in training of personnel has been the Children's Rehabilitation Institute of Cockeysville (near Baltimore), Md. This institution has been in existence since 1937 and has, at the present time, trained the

largest percentage of those working in the field and those who have been responsible for the good results. The number of physical, occupational, and speech therapists included in this group represents slightly better than 400 who have been trained within the last 10 years. They have been spread widely throughout the United States in centers where training of these children and adults has been successful.

Courses have been given also for well-qualified doctors who are eligible to their specialty boards in this field and who will direct these programs. The number of doctors trained so far is slightly in excess of 60. These doctors are also distributed throughout the United States in a fairly even distribution depending on the population of the area. The work which they have done has been outstanding and the results have been excellent.

Since there are 250,000 to 300,000 of these children, the personnel thus trained, both in the therapists and doctors field, has been insignificant with regard to the number necessary to cover the situation and in order to carry out increased training of personnel, it is necessary that the Children's Rehabilitation Institute should expand its facilities in order to take larger classes and train more people. It is doubtful that the demand can ever be filled within the next two or three decades at least. It is earnestly hoped that other training centers will be established and efforts are going forward in this line, but the Children's Rehabilitation Institute is at present highly organized and gives thorough training to its personnel who are certificated in the field when they have completed the course satisfactorily.

Much money is being raised by lay organizations for the care of these children and many centers have been set up throughout the country but this money cannot wisely be spent unless a percentage of it is utilized for the training of the personnel continuously in order to keep up with the demands. It is strongly felt that this personnel training is the most important factor in carrying forward the programs for these children.

Training centers must be set up in connection with medical centers so that those taking the training can have the benefit of all allied specialties which would have any bearing on the children. Baltimore is a recognized medical center and these facilities are available to the doctors and therapists taking the courses. The results of those already trained speak for themselves and it is earnestly desired that in the appropriations toward this work, the Children's Rehabilitation Institute, the pioneer in this field, should be included.

Cancer Research

Mr. Fogarty. Mr. John H. Teeter, executive director of the Damon Runyon Memorial Fund for Cancer Research, has submitted some rather comprehensive statistical information, as well as a short general statement, about that very excellent organization's activities in the field of cancer research. I regret that this was received too late to be printed with the hearings we had on cancer yesterday. Since that cannot be done, we will insert it at this point in the record.

Damon Runyon Memorial Fund

Name: Damon Runyon Memorial Fund for Cancer Research, Inc.
Address: Hotel Astor, Forty-fourth Street and Broadway, New York, N. Y.
Officers: Dan Parker, president, sports writer, Daily Mirror; Leo Lindy, vice President, Lindy's Restaurant; Walter Winchell, treasurer, radio commentator and columnist; Arthur Godfrey, secretary, radio commentator.

The fund enjoys Federal Treasury exemption as a nonprofit organization and was incorporated on February 18, 1947, under the laws of the State of New York.

The Damon Runyon Memorial Fund devotes its entire resources to research in the field of cancer. It does not maintain or support any clinical facilities. All moneys collected are paid out in the year received to institutions enjoying the manpower and facilities to conduct cancer research. There are no deductions of any kind from the contributor's dollar for administrative expenses.

Allocations are made by the committee for fellowships, grants-in-aid, and institutional grants for salaries, equipment, and expendable supplies to support research in the field of cancer. No grants are made for construction.

To date, $4,766,971.24 has been paid out in 218 grants and 150 fellowships in 147 institutions in 45 States, the District of Columbia, and 11 foreign countries. A geographical list of grants will be sent upon request.

Damon Runyon Memorial Fund for Cancer Research, Inc.

Geographical summary, cancer research program

	Senior fellowships	Fellowships	Grants-in-aid	Institutional grants	State total
STATES					
Alabama			$10,687	$23,125.00	$33,812.00
Arizona				6,000.00	6,000.00
Arkansas				15,562.00	15,562.00
California		$25,069.00		366,072.00	391,141.00
Colorado			2,500	45,000.00	47,500.00
Connecticut		4,250.00		54,500.00	58,750.00
Delaware				4,800.00	4,800.00
District of Columbia		3,500.00		92,500.00	96,000.00
Florida				137,215.00	137,215.00
Georgia		3,156.00		10,000.00	13,156.00
Idaho				20,000.00	20,000.00
Illinois	$12,000	9,245.00		210,000.00	231,245.00
Indiana				72,500.00	72,500.00
Iowa				8,600.00	8,600.00
Kansas		10,750.00		33,000.00	43,750.00
Kentucky				22,000.00	22,000.00
Louisiana			5,000	15,000.00	20,000.00
Maine				50,000.00	50,000.00
Maryland		4,161.70	1,597	111,000.00	116,758.70
Massachusetts	47,500	95,851.03		173,000.00	316,351.03
Michigan				32,000.00	32,000.00
Minnesota	6,000	25,000.00		54,000.00	85,000.00
Missouri		11,500.00	8,000	89,940.00	109,440.00
Nebraska				20,000.00	20,000.00
Nevada				5,000.00	5,000.00
New Jersey			1,000	43,592.00	44,592.00
New Mexico				9,600.00	9,600.00
New York State:					
Buffalo		7,002.00		12,960,00	19,962.00
Cooperstown		4,250.00			4,250.00
Rochester				38,146.00	38,146.00
Saranac Lake				10,000.00	10,000.00
New York City	122,000	134,911.04		1,457,372.00	1,714,283.04
Brooklyn		4,500.00		20,000.00	24,500.00
North Carolina	12,000	23,750.00	10,000	60,692.00	106,442.00
North Dakota				5,000.00	5,000.00
Ohio				53,739.24	53,739.24
Oklahoma				30,000.00	30,000.00
Oregon				40,000.00	40,000.00
Pennsylvania	15,000	41,032.00	12,030	64,700.00	132,762.00
Rhode Island				20,000.00	20,000.00
South Carolina				5,000.00	5,000.00
South Dakota				2,500.00	2,500.00
Tennessee			8,660	6,859.00	15,519.00
Texas		4,250.00		121,000.00	125,250.00
Utah		8,500.00	1,700	12,300.00	22,500.00
Vermont			5,400		5,400.00
Virginia		4,000.00			4,000.00
Washington		7,000.00		42,000.00	49,000.00
West Virginia				15,000.00	15,000.00
Wisconsin			4,500	10,000.00	14,500.00
Wyoming				2,500.00	2,500.00
Total, United States	214,500	431,677.71	71,074	3,753,774.24	4,471,026.01
FOREIGN COUNTRIES					
Belgium				10,000.00	10,000.00
Canada		7,545.00		10,000.00	17,545.00
England	5,500			10,000.00	15,500.00
France				10,000.00	10,000.00
Ireland				10,000.00	10,000.00
Israel				35,000.00	35,000.00
Italy				10,000.00	10,000.00
Mexico				5,000.00	5,000.00
Norway				10,000.00	10,000.00
Scotland				10,000.00	10,000.00
Sweden		6,250.00			6,250.00
Total, foreign countries	5,500	13,795.00		120,000.00	139,295.00
Total, United States	214,500	431,677.77	71,074	3,753,774.24	4,471,026.01
Balance pending allocation		4,527.23			4,527.23
Grand total	220,000	450,000.00	71,074	3,873,774.24	4,614,848.24

NOTE.—To date $4,614,848.24 has been allocated in 204 grants and 147 fellowships in 145 institutions in 45 States, the District of Columbia, and 11 foreign countries.

DAN PARVER, *President.*
WALTER WINCHELL, *Treasurer.*
LEO LINDY, *Vice President.*

Geographical breakdown of allocations

Institution	Number and type of allocation	Expired	Active	Total institution	State total
ALABAMA					
Alabama Polytechnic	1 grants-in-aid	$3,600.00		$3,600.00	
Baptist Hospital	do	7,087.00		7,087.00	
Tuskegee Institute	2 institutional research grants.	10,000.00	$13,125.00	23,125.00	$33,812.00
ARIZONA					
Arizona State	1 institutional research grant.		6,000.00	6,000.00	6,000.00
ARKANSAS					
University of Arkansas	2 institutional research grants.	10,000.00	5,562.00	15,562.00	15,562.00
CALIFORNIA					
American Cancer Society, California.	1 institutional research grant.	100,000.00		100,000.00	
American Cancer Society, Los Angeles.	do	40,000.00		40,000.00	
California Institute of Technology.	do		10,000.00	10,000.00	
Institute of Medical Research	do		10,000.00	10,000.00	
Mercy Hospital	do		10,000.00	10,000.00	
Mount Zion Hospital	3 institutional research grants.	7,400.00	12,850.00	20,250.00	
Stanford University	1 institutional research grant.		10,000.00	10,000.00	
University of California	3 institutional research grants.	125,000.00	25,000.00		
	6 fellowships	25,068.70		175,068.70	
University of Southern California.	1 institutional research grant.		15,822.00	15,822.00	391,140.70
COLORADO					
University of Colorado	1 grant-in-aid	2,500.00			
	2 institutional research grants.	25,000.00	20,000.00	53,500.00	53,500.00
CONNECTICUT					
Yale University	1 fellowship	4,250.00			
	3 institutional research grants.	50,000.00	4,500.00	58,750.00	58,750.00
DELAWARE					
University of Delaware	1 institutional research grant.	4,800.00		4,800.00	4,800.00
DISTRICT OF COLUMBIA					
George Washington University	1 fellowship		3,500.00		
	3 institutional research grants.	35,000.00	10,000.00	48,500.00	
Howard University	2 institutional research grants.	25,000.00	10,000.00	35,000.00	
National Academy of Science	do	2,500.00	2,500.00	5,000.00	
Children's Hospital	1 institutional research grant.		7,500.00	7,500.00	96,000.00
FLORIDA					
University of Miami	do	75,000.00		75,000.00	
University of Florida	2 institutional research grants.	50,000.00	10,000.00	60,000.00	
Florida Southern College	1 institutional research grant.		2,215.00	2,215.00	137,215.00
GEORGIA					
Medical College of Georgia	1 fellowship	3,156.25		3,156.25	
Emory University	1 institutional research grant.	10,000.00		10,000.00	13,156.25
IDAHO					
University of Idaho	do	18,000.00		18,000.00	
St. Luke's Hospital	do	2,000.00		2,000.00	20,000.00

Geographical break-down of allocations—Continued

Institution	Number and type of allocation	Expired	Active	Total institution	State total
ILLINOIS					
Chicago Tumor Institute	do	$25,000.00		$25,000.00	
University of Chicago	5 fellowships	15,243.44	$6,000.00		
	2 institutional research grants.	150,000.00	25,000.00	196,243.44	
M. Reese Hospital	1 institutional research grant.	10,000.00		10,000.00	$231,243.44
INDIANA					
Indiana University	2 institutional research grants.	20,000.00	7,500.00	27,500.00	
University of Notre Dame	do	25,000.00	20,000.00	45,000.00	72,500.00
IOWA					
State University of Iowa	do		8,600.00	8,600.00	8,600.00
KANSAS					
University of Kansas	2 fellowships	2,250.00	4,500.00		
	1 institutional research grant.	25,000.00		31,750.00	
St. Margaret's Hospital	1 fellowship	4,000.00			
	2 institutional research grants.	4,000.00	4,000.00	12,000.00	43,750.00
KENTUCKY					
Kentucky Cancer Mobile	1 institutional research grant.	10,000.00		10,000.00	
University of Louisville	do		10,000.00	10,000.00	
Ursuline College	2 institutional research grants.	2,000.00	2,000.00	4,000.00	24,000.00
LOUISIANA					
Tulane University	1 grant-in-aid	5,000.00			
	1 institutional research grant.	15,000.00		20,000.00	20,000.00
MAINE					
Jackson Memorial Laboratory	do	50,000.00		50,000.00	50,000.00
MARYLAND					
Johns Hopkins University	1 fellowship		4,161.70		
	2 institutional research grants.	50,000.00	10,000.00	64,161.70	
University of Maryland	1 institutional research grant.	25,000.00		25,000.00	
American Cancer Society, Maryland division.	do	26,000.00		26,000.00	
Carnegie Institution of Washington.	1 grant-in-aid	1,597.00		1,597.00	116,758.70
MASSACHUSETTS					
Beth Israel Hospital	3 fellowships	8,750.00	4,500.00	13,250.00	
Brigham Hospital	4 fellowships	4,250.00	11,250.01	15,500.01	
Massachusetts Memorial Hospital.	1 fellowship	4,250.00		4,250.00	
Free Hospital for Women	1 institutional researchg rants.		5,500.00	5,500.00	
Harvard Medical School	do	10,000.00		10,000.00	
Massachusetts General Hospital	3 fellowships	10,750.00	5,250.00		
	4 institutional research grant.	50,000.00	78,197.00	144,197.00	
Massachusetts Institute of Technology	1 institutional research grants.		5,000.00	5,000.00	
New England Center Hospital	4 fellowships	5,500.00	15,750.00	21,250.00	
Pratt Diagnosis	5 fellowships	16,074.50	3,500.00	19,574.50	
Boston City Hospital	4 fellowships	14,178.12	6,500.00	20,678,12	
Tufts College	6 fellowships	14,000.00	14,750.00		
	4 institutional research grant.	50,000.00	20,364.00	99,114.00	
University of Massachusetts	1 institutional research grant.	3,000.00		3,000.00	
Worcester Foundation for Experimental Biology.	2 institutional research grants.	9,500.00	10,000.00	19,500.00	380,813.63

Geographical break-down of allocations—Continued

Institution	Number and type of allocation	Expired	Active	Total institution	State total
MICHIGAN					
Detroit Institute	1 institutional research grant.	$25,000.00		$25,000.00	
University of Michigan	2 institutional research grants.	7,000.00	$7,884.00	14,884.00	$39,884.00
MINNESOTA					
University of Minnesota	7 fellowships	16,000.00	15,000.00		
	2 institutional research grants.	50,000.00		81,000.00	
College of St. Scholastica	1 institutional research grant.		4,000.00	4,000.00	85,000.00
MISSOURI					
St. Louis City Hospital	1 fellowship	4,000.00		4,000.00	
St. Louis University	3 institutional research grants.		61,000.00	61,000.00	
Washington University	3 fellowships	3,500.00	8,000.00		
	1 grant-in-aid	8,000.00			
	3 institutional research grants.	25,000.00	13,640.00	58,140.00	123,140.00
NEBRASKA					
University of Nebraska	2 institutional research grants.	10,000.00	10,000.00	20,000.00	20,000.00
NEVADA					
University of Nevada	1 institutional research grant.	5,000.00		5,000.00	5,000.00
NEW JERSEY					
Princeton University	1 grant-in-aid	1,000.00		1,000.00	
Rutgers University	4 institutional research grants.	15,000.00	28,592.00	43,592.00	44,592.00
NEW MEXICO					
University of New Mexico	2 institutional research grants.	3,600.00	6,000.00	9,600.00	9,600.00
NEW YORK STATE					
Buffalo General Hospital	2 fellowships	7,000.00			
	1 institutional research grant.		12,960.00	19,960.02	
Basset Hospital	1 fellowship		4,250.00	4,250.00	
University of Rochester	2 institutional research grants.	20,000.00	18,146.00	38,146.00	
Trudeau Foundation	do	10,000.00	10,028.00	20,028.00	82,384.02
NEW YORK CITY					
Columbia University	10 fellowships	26,511.45	26,600.00		
	6 institutional research grants.	30,000.00	88,680.00	171,791.45	
Committee for Promotion of Medical Research.	1 institutional research grant.		10,000.00	10,000.00	
Cornell University	1 fellowship		4,019.15	4,019.15	
American Cancer Society, New York City.	5 institutional research grants.	640,000.00	240,000.00	880,000.00	
American Museum of Natural History.	3 institutional research grants.	30,000.00		30,000.00	

Geographical break-down of allocations—Continued

Institution	Number and type of allocation	Expired	Active	Total institution	State total
NEW YORK CITY—Con.					
Fordham University	2 institutional research grants.	$12,000.00	$5,450.00	$17,450.00	
Harlem Hospital	do	10,000.00	5,000.00	15,000.00	
Hickrill Chemical Research	1 institutional research grant.		8,200.00	8,200.00	
Lenox Hill Hospital	do		10,000.00	10,000.00	
Memorial Center	41 fellowships	106,569.07	86,977.04		
	7 institutional research grants.	115,000.00	123,240.00	431,786.11	
Montefiore Hospital	2 institutional research grants.	10,000.00	7,500.00	17,500.00	
New York Academy of Science	do	14,000.00		14,000.00	
New York Medical College	do	8,500.00	4,800.00	13,300.00	
New York University	6 institutional research grants.	19,000.00	60,502.00		
	1 fellowship		6,000.00	85,502.00	
Rockefeller Institute	do		4,000.00	4,000.00	
New York City College	1 institutional research grant.		1,000.00	1,000.00	
St. Luke's Hospital	3 institutional research grants.		12,000.00	12,000.00	
St. Vincent's Hospital	2 institutional research grants.	10,000.00	7,500.00	17,500.00	
Brooklyn Cancer Institute	1 fellowship	4,500.00		4,500.00	
St. Catherine's Hospital	1 institutional research grant.	10,000.00		10,000.00	
Jewish Hospital	do	10,000.00		10,000.00	$1,767,548.71
NORTH CAROLINA					
Duke University	do		50,000.00		
	8 fellowships	21,125.00	14,500.00		
	1 grant-in-aid	10,000.00		95,625.00	
University of North Carolina	1 institutional research grant.		10,692.00	10,692.00	106,317.00
NORTH DAKOTA					
University of North Dakota	do		5,000.00	5,000.00	5,000.00
OHIO					
College of St. Mary of the Springs.	do		1,500.00	1,500.00	
Institute Divi Thomae	do	5,000.00		5,000.00	
Ohio State University	do		5,850.00	5,850.00	
University of Cincinnati	2 institutional research grants.	10,000.00	10,000.00	20,000.00	
Western Reserve University	do	20,000.00	7,239.24	27,239.24	59,589.24
OKLAHOMA					
Oklahoma Medical Research Foundation.	do		30,000.00	30,000.00	
OREGON					
University of Oregon	do	40,000.00	6,000.00	46,000.00	46,000.00

Geographical break-down of allocations—Continued

Institution	Number and type of allocation	Expired	Active	Total institution	State total
PENNSYLVANIA					
Institute of Cancer Research	1 institutional research grant.	$25,000.00		$25,000.00	
Jefferson Medical College	1 fellowship		$4,500.00		
	1 institutional research grant.		4,500.00	9,000.00	
University of Pennsylvania	10 fellowships	25,998.35	16,750.00		
	3 grants-in-aid	10,739.41			
	2 institutional research grants.	7,000.00	8,200.00	68,687.76	
University of Pittsburgh	2 fellowships	4,283.55	4,500.00		
	1 grant-in-aid	1,250.00			
	2 institutional research grants.	10,000.00	10,000.00	30,033.55	$132,721.31
RHODE ISLAND					
Brown University	1 institutional research grant.	5,000.00		5,000.00	
Providence College	do	15,000.00		15,000.00	20,000.00
SOUTH CAROLINA					
Medical College of South Carolina	do	5,000.00		5,000.00	5,000.00
SOUTH DAKOTA					
South Dakota State College	do		2,500.00	2,500.00	2,500.00
TENNESSEE					
University of Tennessee	do		3,859.00		
	2 grants-in-aid	8,660.00		12,519.00	
Carson-Newman College	1 institutional research grant.		3,000.00	3,000.00	15,519.00
TEXAS					
Foundation of Applied Research	do		20,000.00	20,000.00	
Southwestern Medical College	do	50,000.00		50,000.00	
University of Texas, medical department, Anderson Hospital.	1 fellowship	4,250.00			
	2 institutional research grants.	16,000.00	25,000.00	45,250.00	
University of Texas, medical branch.	do		10,000.00	10,000.00	125,250.00
UTAH					
University of Utah	2 fellowships	4,250.00	4,250.00		
	1 grant-in-aid	1,700.00			
	1 institutional research grant.	10,000.00		20,200.00	
Utal State Agricultural College	do		2,300.00	2,300.00	22,500.00
VERMONT					
University of Vermont	1 grant-in-aid	5,400.00		5,400.00	5,400.00
VIRGINIA					
Medical College of Virginia	1 fellowship	4,000.00		4,000.00	4,000.00
WASHINGTON					
University of Washington	2 fellowships	3,500.00	3,500.00		
	1 institutional research grant.	25,000.00		32,000.00	
State College of Washington	do	10,000.00		10,000.00	
Seattle University	do	7,000.00		7,000.00	49,000.00
WEST VIRGINIA					
Marshall College	2 institutional research grants.	7,500.00	7,500.00	15,000.00	15,000.00

Geographical break-down of allocations—Continued

Institution	Number and type of allocation	Expired	Active	Total institution	State total
WISCONSIN					
University of Wisconsin	3 grants-in-aid	$4,500.00			
	1 institutional research grant.	10,000.00		$14,500.00	$14,500.00
WYOMING					
University of Wyoming	do		$2,500.00	2,500.00	2,500.00
		2,954,041.86	1,661,505.14	4,615,547.00	4,615,547.00
FOREIGN					
BELGIUM					
Institut Jules Bordet	do		10,000.00	10,000.00	10,000.00
CANADA					
McGill University	do		10,000.00		
	2 fellowships	4,016.60	3,528.05	17,544.65	17,544.65
ENGLAND					
National Institute of Medical Research.	1 fellowship	5,500.00		5,500.00	
Imperial Cancer Institute	1 institutional research grant.		10,000.00	10,000.00	15,500.00
FRANCE					
Laboratory de Genetique	do		10,000.00	10,000.00	10,000.00
IRELAND					
Cancer Association	do		10,000.00	10,000.00	10,000.00
ISRAEL					
Hebrew University	do		10,000.00	10,000.00	
Weizmann Institute	do		25,000.00	25,000.00	35,000.00
ITALY					
University of Bologna	do		10,000.00	10,000.00	10,000.00
MEXICO					
Hospital de Enfermedades	do	5,000.00		5,000.00	5,000.00
NORWAY					
Norwegian Radium Hospital	do		10,000.00	10,000.00	10,000.00
SCOTLAND					
Royal Infirmary	do		10,000.00	10,000.00	10,000.00
SWEDEN					
Nobel Medical Institute	1 fellowship		6,750.00	6,750.00	
Radiumhemmit	do		4,000.00	4,000.00	
Karolinskal Institute	do	2,250.00		2,250.00	13,000.00
		16,766.60	129,278.05	146,044.65	146,044.65
Total United States				4,615,547.00	
Total foreign				146,044.65	
Cost of fellowship seminar		3,241.11		4,761,591.65	
Interest on fellowship funds invested		2,550.22			
Total		690.89			
Balance pending allocation		4,688.70		5,379.59	
Total United States and foreign				4,766,971.24	

FEDERAL SECURITY AGENCY

Office of Education

WITNESSES

ARTHUR L. HARRIS, FIELD OPERATIONS CHIEF—SCHOOL ASSISTANCE IN FEDERALLY AFFECTED AREAS
B. ALDEN LILLYWHITE, ASSOCIATE DIRECTOR—SCHOOL ASSISTANCE IN FEDERALLY AFFECTED AREAS
D. W. KcKONE, EXECUTIVE OFFICER
ROBERT W. BROWN, ASSISTANT BUDGET OFFICER, FEDERAL SECURITY AGENCY

School Construction

Mr. Fogarty. The committe has now before it the supplemental appropriation request for the Office of Education, Federal Security Agency contained in House Document No. 348. We shall include the recommendation of the Bureau of the Budget, included in that document, in the record at this point.

(The matter is as follows:)

Office of Education

Budget page	Heading
239	School construction: (Delete the first paragraph under this head and insert in lieu thereof the following:) For providing school facilities and for grants to local educational agencies in federally affected areas, as authorized by title II of the Act of September 23, 1950 (Public Law 815), *including necessary expenses of technical services rendered by other agencies, $150,000,000, to be immediately available* and to remain available until expended [, $75,000,000, of which $25,000,000 is for payment of obligations incurred under authority granted for the foregoing purposes in the Supplemental Appropriation Act, 1951].

The above provision amends the language submitted in the 1953 budget so as to make available immediately upon its enactment the appropriation for the fiscal year 1953. This will permit somewhat earlier initiation and completion of school construction in areas of high priority as determined by an analysis of applications now pending under Public Law 815, enacted September 23, 1950.

Mr. Harris, do you have a statement for the committee?

Mr. Harris. I have no written statement prepared to present to the committee, but Mr. Lillywhite will make an oral presentation.

Mr. Fogarty. Go ahead, please.

General Statement

Mr. Lillywhite. Mr. Chairman, as you all know, the President included in his recent message a request for $150 million for Public Law 815 for the 1953 fiscal year. We came before this same committee within the past month, I think, and presented justification as to the need for that money. Also, justification was presented for some additional administrative money to help administer it.

The President recently requested that money be made available sooner than the next fiscal year. We are now before you to justify that request. The statement which you have gives the most essential details on the existing program. I will try not to make any extended statement.

REASON FOR LANGUAGE CHANGE

Mr. FOGARTY. Will you tell us the reasons for this change in language, making immediately available the $150 million that you are requesting in 1953?

Mr. LILLYWHITE. Yes; I think there are a number of reasons. The 983 school districts that have submitted applications have construction projects ready to go. There are a very large number of unhoused children, children without standard school facilities in these same schools districts.

Mr. FOGARTY. How many?

Mr. LILLYWHITE. There are a total of over 750,000 federally connected children, and almost 680,000 for which there are no standard school facilities in these districts. That includes only section 202. If funds are made available after July 1, it takes a little while to approve the projects, and most of the communities haven't had enough money to hire the architects and draw the plans; so, it takes 6 months in some cases and longer in others after a community knows the money is available to get construction under way. The law provides we give 10 percent after approval to the communities for hiring the architests and preparing specifications. If this money becomes available in July or August, as was previously the case, depending on how fast the school could operate, it would take 3 or 4 months before you start construction. Then, another year for construction.

Some could do it quicker. School facilities wouldn't be available for many children next year. Some could go faster than that. In some areas the construction season wouldn't permit them to do much school construction until a year from this spring.

Since the need is so great in these areas at the present time, if the money is made available by May, the processing can start, and we can get some projects approved and the facilities can be made available sooner.

That is the major justification for it. We have had reports of the very great difficulty of hiring personnel in a number of these defense projects because there are no schools available. It is a morale problem with the defense establishments because schools are not available for the children of their personnel and, if we can get schools built that much quicker, it tends to move things along all the way around.

AMOUNT OF 1952 FUNDS ALLOCATED

Mr. FOGARTY. Have all the funds for fiscal year 1952 been allocated?

Mr. LILLYWHITE. $96 million was made available last year and $50 million was made available this year. We have set aside for section 202 allocations to the local school districts, an amount of $112 million. $105 million has been obligated. I am informed by our people who handle this that all this money will be obligated today or tomorrow. We will obligate the entire $112 million that has been set aside for section 202 of the act.

Mr. FOGARTY. So as of this week the full amount has been obligated and there is no money available at the present time for new school projects under this program?

Mr. LILLYWHITE. That is correct. We hold back about two to two and a half million dollars as a contingency fund because something

might develop that is critically urgent. Also, we have had the experience that, while we get the best estimates of costs that the local school districts can make for us, when they let a bid, the cost may run up somewhat. So we need a little bit more for contingencies. All but the contingency fund will be allotted.

ADDITIONAL FUNDS REQUIRED TO MEET FULL ENTITLEMENTS

Mr. FOGARTY. I suppose in the latter part of this calendar year, which will be in the first part of the fiscal year 1953, that another supplemental estimate will be forthcoming under this program.

Mr. LILLYWHITE. I cannot answer you, Mr. Chairman, definitely on that. I think it was stated in the proceeding hearings when we were talking about this money in 1953, that we had been discussing with the Bureau of the Budget a supplemental for this year. Since the request was transferred to this year, I cannot answer the question.

Mr. FOGARTY. So that means there will be another supplemental request in 1953. How much do you anticipate that will be?

Mr. LILLYWHITE. I can give you the total picture.

Mr. FOGARTY. All right.

Mr. LILLYWHITE. We have gone on the concept this year that with the limited amount of money available what we should do is stretch the small amount of money we had to provide minimum school facilities for the largest number of children. We have set up here, a tabulation showing data for each district that applied for assistance. They are not all definitely analyzed, but we put down the number of children they had in their schools, the capacity of the school facilities calculated to 110 percent. Then we took what was left. The children who were left were the ones for which no standard school facilities were available. Then calculating what it would cost to provide minimum school facilities for 90 percent of the unhoused children, it would take $206 million plus $8 million for the children on Federal property. That is the minimum program.

Mr. FOGARTY. That is $250 million over and above the anticipated $150 million for 1953?

Mr. LILLYWHITE. That is included.

Mr. FOGARTY. That is included? That includes the $150 million?

Mr. LILLYWHITE. That is right.

Mr. FOGARTY. So that would leave, then, $65 million anticipated?

Mr. LILLYWHITE. To meet that emergency program of housing only 90 percent of the unhoused federally connected children in these areas. That is about half of the amount of money that the school districts are entitled to receive under the act. I have the figures for the total program.

AMOUNT OF SCHOOL ENTITLEMENTS AUTHORIZED BY LAW

Mr. FOGARTY. How much are they entitled to receive under the act?

Mr. LILLYWHITE. They are entitled to receive under section 202, $489 million. The $983 applications that are on file in our office now, the estimated tentative entitlements—some are firm, others are just read from the application—there will be adjustment up or down as we review them in detail—amount to $489 million. From that should be subtracted the $112 million that has been appropriated to that section.

That would leave $326 million in section 202 of entitlements.

Mr. FOGARTY. When was this law passed?

Mr. LILLYWHITE. September 1950.

ANTICIPATED COST WHEN LAW WAS ENACTED AND EXPIRATION DATE OF ENTITLEMENTS

Mr. FOGARTY. What did they anticipate the total cost of this program to be? This law runs out when, 1953?

Mr. LILLYWHITE. No additional entitlements can be given after the end of this year. The schools take what children are in their school district until June 30 and can get entitlement on this year's enrollment. No further entitlements. The law provides one additional year to get appropriations and a final year after that to complete the construction.

Mr. FOGARTY. So 1953 will be the final year for appropriations under the act as it is now.

Mr. LILLYWHITE. Yes; that is correct. To answer your other question, I had something to do in working with the House Education and Labor Committee, and I helped to make the estimates presented. We estimated it would cost about $200,000,000 for this act.

REASON FOR INCREASE OVER ORIGINAL ESTIMATE OF PROGRAM COST

Mr. FOGARTY. Now we find that your estimate is $489,000,000.

Mr. LILLYWHITE. I gave you the estimate under section 202. It is $489,000,000. This should be said. I think this was all developed and the data submitted to the committee on which they based their estimates before there was an indication of the stepped-up defense program, before Korea was as serious as it is now.

Mr. FOGARTY. We were in Korea at the time this bill was passed by the House.

Mr. LILLYWHITE. We were in Korea when it was passed by the House, but the estimates were based on picking up the backlog since 1939, but did not consider in any substantial way what lay in the future. We have had very substantial expansion in defense activities. The Armed Forces have been increased in size. I am sure we had never heard of anything like Savannah River or Paducah, Ky., when we made these estimates, nor did we know that over a hundred thousand Wherry housing units would be constructed, most of them on Federal property.

OBLIGATION SCHEDULE OF FUNDS REQUESTED

Mr. FOGARTY. If this $150 million was available by the passage of this appropriation bill for the rest of 1952 and fiscal 1953, when do you estimate it would all be obligated?

Mr. LILLYWHITE. I will tell you a little how we are going at it, to try to get an exact time. We have started on the applications that have come in this year and taken those that are highest on the priority list, because those are the ones we have to allot the money to on the basis of relative urgency of need. I suppose there has been 250 to 300 applications reviewed; 75 or 80 will get money. There will be some we can make allotments to immediately. With $150

million you know you can go down the priorities of 55 or 50. You wouldn't have to be so careful about the top one and take them in order. You could roll them out as far as the money would go or with a percentage of it. I don't know exactly. We could start making allotments immediately. I think all the money could be obligated by the end of the fiscal year.

Mr. FOGARTY. It might have been an unfair question because I don't know and you don't know when this bill will be signed by the President.

Mr. LILLYWHITE. That is correct. But we are in a position to make some allotments immediately because we have some projects approved that are not high enough to get the money now. Some have been analyzed in detail. The staff is available to keep on analyzing them, but we will, by no means, have the 900 applications analyzed.

(Discussion off the record.)

REASON FOR EXCLUSION OF LANGUAGE CHANGE FROM REGULAR ESTIMATES

Mr. SCHWABE. I am wondering why this was not presented to us when you came in with your original justification. I mean this change in language making the funds available earlier than was originally requested.

Mr. LILLYWHITE. Mr. Schwabe, this is the only answer I feel I can give to that. Of course, we presented, as was the case with all the agencies, to the Bureau of the Budget, our estimates on the total program and the request went up for $150 million for next year. Then we immediately presented to them this story I just gave you.

Mr. SCHWABE. But subsequent to the time you made your request for the $150 million——

Mr. MCKONE. We had a supplemental budget pending at the time we were here just a few weeks ago. The Budget Bureau decided rather than recommend the supplemental budget to this committee they would recommend advance spending authority.

Mr. SCHWABE. That means that advance spending out of the original request for $150 million would exhaust that sooner and there will be another supplemental coming along. That is envisioned now, isn't it?

Mr. MCKONE. It is not in our present planning, but I would assume, if we go up to this full figure that Mr. Lillywhite has just discussed, we would suggest a supplemental to the Budget Bureau.

Mr. SCHWABE. You will spend this sooner and have it gone, and then I understand you to say that the Bureau of the Budget suggested that this be the way to handle it, and if you needed more money later on, you will ask for anoher supplemental appropriation.

Mr. MCKONE. The Budget Bureau did not give us any indication that they would approve a supplemental.

Mr. SCHWABE. That was the method they preferred so far as procedure was concerned?

Mr. MCKONE. Yes, sir.

Mr. SCHWABE. But you did make the request to the Budget Bureau originally that you have this step-up that you are asking for now.

Mr. MCKONE. We did not request advance spending authority. We did request a supplemental budget for fiscal 1952.

AMOUNT OF SUPPLEMENTAL BUDGET SUBMITTED TO BUDGET BUREAU

Mr. SCHWABE. What was the amount of that?

Mr. MCKONE. In round figures, $215 million.

ESTIMATED TOTAL COST OF PROGRAM

I would like to have approval of the committee to insert a table that would answer your original question, Mr. Chairman, perhaps in better detail as to what the total cost of this program would be.

Mr. FOGARTY. All right.

(The information referred to above follows:)

1. Estimated requirements for total program:		
Sec. 202	$489,554,209	
Sec. 203	18,900,000	
Sec. 204	51,187,835	
		$559,642,044
2. Appropriations authorized:		
Fiscal year 1951	96,653,000	
Fiscal year 1952	50,000,000	
		146,653,000
3. Estimated additional amount required to complete program		412,989,044
4. Appropriation request for fiscal year 1953		150,000,000

Mr. LILLYWHITE. The figures I quoted were only section 202 requirements. They did not include 204, "Construction on Federal property," or "Temporary facilities needed," such as in Savannah River.

NEED FOR STEP-UP PROGRAM

Mr. SCHWABE. The need for this step-up in your program is really not much more imperative now than it was when you made the original request, is it?

Mr. MCKONE. I do not recall what the record will show, but I believe Dr. Lindman said he would reach the limit of all his available money in just a few weeks. I recall his making that statement, perhaps off the record. We discussed how far we had gone in processing our 1952 money.

Mr. FOGARTY. I think he did say in a few weeks or some specified time like that and did tell us he had pending before the Bureau of the Budget a supplemental request in the neighborhood of $215,000,000.

Mr. LILLYWHITE. That has come out of that request, this step-up of the $150 million.

Mr. FOGARTY. Instead of giving you a supplemental, did they say they would recommend this step-up and then see if you should get a supplemental later on?

Mr. LILLYWHITE. I don't know that they recommended the latter. This is what they permitted. I presume they would consider what the need was after that.

Mr. SCHWABE. A while ago did I understand you to say that it will take some of these schools perhaps 6 months or even longer to get their construction programs under way after they made application or originally signified their need?

Mr. LILLYWHITE. After approval given to them by our office and funds allotted to them.

Mr. SCHWABE. I thought that was what you said. I wasn't sure.

Mr. LILLYWHITE. That is right. We have these 983 applications now on file. They have been on file in our office since October 27 of last year.

Mr. SCHWABE. It is conceivable that, if you had this program stepped up so that this $150 million is made available for the program at the time of the passage of this act, you would have very little way of knowing how many of them would actually get under construction in time for the children to go to school to use these facilities beginning in the fall of 1953—not any more than you know now.

Mr. LILLYWHITE. That is correct, Mr. Congressman. I do not think you could hope that any of them would be completed by September. It simply means giving them 3 or 4 months head start if the money were available now. If an application comes in and they avail themselves of the advanced planning money authorized in community facilities service and have drawn plans and are actually ready to let the bid as soon as we can allot the funds, as soon as we can say they can have the funds, they are ready to go ahead. Some haven't drawn the plans. As soon as we approve the project, 10 percent has to be allotted to them and then they have to draw the plans. So 2 to 3 months is lost in those school districts that have not yet drawn plans. That is a matter that is beyond our control. It is a matter for the local school districts.

Mr. SCHWABE. On the other hand, some of them already have had plans drawn.

Mr. LILLYWHITE. Yes. One school district called us the other day. They have two fields out there with a thousand housing units being occupied and a thousand new children coming in at the edge of the school district. The day we approved the application they were ready to let their contract because they had the plans drawn beforehand.

Mr. SCHWABE. A lot of school districts have their architects retained and they would expedite the handling of the preliminaries.

Mr. LILLYWHITE. That is correct. A number of them have anticipated having to do something and they have plans moving along in a number of cases.

ABILITY OF SCHOOL DISTRICTS TO FINANCE SCHOOL CONSTRUCTION WITHOUT FEDERAL AID

Mr. SCHWABE. Don't you find in many instances they could be on their own, but are going to try to get help from the Federal Treasury if they can?

I am not asking you to specify any individual cases, but I am asking you for a general answer.

Mr. LILLYWHITE. I can say this: that a review of the financial data that comes in in these applications will show a very large majority of these school districts in federally affected areas have gone just about to the limit of their bonding capacity, because there was a period of years when there was no financial help available, and a number of them have voted bonds and extra levies year after year. A great majority of them have voted nearly all the bonds they can and have done a great deal on their own.

Mr. SCHWABE. But still there are quite a number—be frank with me now—that could go further.

Mr. LILLYWHITE. There are some that could vote more bonds. There is no question about that.

Mr. SCHWABE. What do you do with those who are so situated?

Mr. LILLYWHITE. Under the act the school district is entitled to this money. They count up the children who come within the categories the act specifies and then they are entitled to so much per child based under the other terms of the act. We make no allotment on the basis of the number of children. That is the entitlement that they have. We make an allotment on what we call part 2 of the application, which is the submission of a project for construction. That project can be a hundred percent Federal funds, part Federal and part local, whichever the school district desires. Under the act we are not permitted to inquire into the financial capacity of the school district in terms of allotment of this money.

Mr. SCHWABE. Your judgment is not based, to any extent whatever, upon the financial condition of the school district to go on with the project on their own?

Mr. LILLYWHITE. None whatever. The only way that enters into it is that this rate per child that we pay a district is based upon complete school facilities. We have not permitted the allocation of Federal funds for anything other than minimum school facilities. There is a shortage of materials, for one thing, and the money is far from enough to meet all the entitlements. So we set forth in our regulations that Federal funds will not be allotted for the construction of anything but minimum school facilities. So we have held it down, to some extent, in that way. We do not build any gymnasiums.

Mr. SCHWABE. But they might build their own gymnasiums.

Mr. LILLYWHITE. If they want to put on something fancy, that is their business. We simply want to make sure that what money we put in is to provide minimum standard classrooms and minimum auxiliary facilities.

Mr. SCHWABE. My point is it is conceivable and, as a matter of fact, I think the conditions show that these circumstances exist, that there are instances in which you furnish this aid and the school districts are in a position to do it themselves so far as any legal limitations are concerned.

Mr. LILLYWHITE. That is correct, Mr. Congressman. The act, as you know, provides that once all the construction that these school districts need is completed, they can be reimbursed for school facilities they built with their own funds.

Mr. SCHWABE. Provided the entitlements exist.

Mr. LILLYWHITE. Provided the entitlements exist. I don't have immediately before me, but I think there are $45 or $50 million of requests on hand for reimbursement to pay them back for whatever they have already built. Of course, that takes the last priority under the act, but that is some evidence of the thing you are talking about.

Mr. SCHWABE. That is correct. I think that is all.

Mr. FOGARTY. Mr. Busbey.

FUNDS TO BE USED FOR SCHOOL CONSTRUCTION ONLY IN FEDERALLY IMPACTED AREAS

Mr. BUSBEY. Mr. Lillywhite, these funds are to be used entirely in what is known as Federal impacted areas, is that correct?

Mr. LILLYWHITE. That is correct, sir.

Mr. BUSBEY. But it does not take into consideration such federally impacted areas as the Savannah project or the other project at Paducah, does it?

Mr. LILLYWHITE. Yes; it does take those in. We have made an allotment of approximately $6½ or $7 million to the Savannah River and Paducah, Ky., areas, part of it to construct temporary school facilities for the children of the temporary construction workers, and then we have recently reserved funds, a smaller amount of funds, to construct permanent school facilities for the children of permanent workers.

NUMBER OF SCHOOL DISTRICTS ENTITLED TO FUNDS

Mr. BUSBEY. How many projects under this program do you anticipate all together?

Mr. LILLYWHITE. How many?

Mr. BUSBEY. Yes.

Mr. LILLYWHITE. Well, there are 983 school districts that are eligible for assistance under section 202. They have applications on file. I think there are about 60 of those 983 that have no entitlement, so there are over 900 school district that are entitled to funds.

CATEGORIES OF ENTITLEMENTS

Mr. BUSBEY. As to their entitlements, is that spelled out rather definitely in the law?

Mr. LILLYWHITE. Yes, there are three categories of children that you count under the act. Section 202–A—are those children whose parents live and work on Federal property. There is no tax income theoretically for the local community.

Now the section 202–B children, are those in which either the home is taxable and the industry in which they work is nontaxable, or vice versa; the industry at which they work is taxable but the home is a Federal housing project and is nontaxable. There is a third category which does not relate directly to nontaxable Federal property but it is a sudden and substantial impact on the community resulting from Federal activity since 1939.

Under the A category you give 95 percent of the cost of constructing complete school facilities for each eligible child. Under the B category you give 70 percent, and under the C category you give 45 percent.

The cost of constructing complete school facilities in the State as specified in the act says "based on all contracts entered into the preceding year." So, we have obtained from the State departments of education a tabulation showing all contracts entered into last year for construction of school facilities, the capacity of the school facilities, and the division of the two gives you the cost for constructing complete school facilities in the State. That figure is set down and

discussed with the State department, and when any of these children come in these categories you simply make the multiplication to get the entitlement.

FACTORS LIMITING SCHOOL DISTRICT ENTITLEMENTS

Mr. BUSBEY. The thing that makes an impact on me is the fact that there are so many of these school districts entitled to funds under the law. I was under the impression that we had pretty well taken care of this program on the defense construction during World War II on these federally impacted areas.

Mr. LILLYWHITE. Well, the act says something on that also. It says any school district that has received school facilities in whole or in part with Federal funds since 1939 shall present the data on those school facilities and the Commissioner of community facilities has an independent authority under the act.

He determines the original cost and the remaining value, and he certifies to the Commissioner of Education what the remaining value of those school buildings is. Then we deduct for the entitlement of this school district whatever they got in World War II.

Now in some cases the remaining value of those buildings has wiped out the entire entitlement, some very few cases. In other cases it has reduced the entitlement, and I believe—I am not certain on that figure—we have deducted about $55 million from the entitlement of these districts on account of such certifications. Most of those school facilities that were built under the Lanham Act were temporary facilities.

REFERENCE TO EQUITABILITY OF PROGRAM FOR ALL SECTIONS OF THE COUNTRY

Mr. BUSBEY. I brought up last year and again this year when Mr. McGrath was before the committee, about something being done for the situation in my district, which happens to be inside the city limits of Chicago.

Do you know of anyting that has transpired or of any concrete work that has been done for schools adjoining this tremendous plant which is now the Ford Motor Co. Aircraft Division where they are making airplane engines, in order that new schools in that section could come under the law?

Mr. LILLYWHITE. Of course, a number of the representatives of the large cities have presented information to us objecting to what they call discrimination against the large cities because the eligibility requirements are roughly double.

Mr. BUSBEY. In my estimation it is discrimination of the rankest kind.

Mr. LILLYWHITE. Well, the only thing I can say on it is that recommendations for changes in Public Laws 815 and 874, of course, have been requested. The President recommended that certain amendments be made to take care of the continuing impact in these critical defense areas.

Mr. BUSBEY. I am not going to speak for the rest of the committee, because I have no right to. I can only speak for myself, but until

something is done I am not going to vote a dime for any of this program, and I am going to oppose it on the floor of the House when it comes out, regardless of what the committee does. I am not going to stand by and see certain discrimination like this go on, because it is very bad.

If you are going to have a program, it ought to work equitably for all sections of the country, and Chicago should not be discriminated against.

Mr. LILLYWHITE. The amendments that are to be recommended should be before the Congress shortly. I can't tell you exactly what they will be now. There may be some amendments that will do something about that situation recommended to the Congress.

Mr. BUSBEY. As a representative of the district, I have to take into consideration the over-all national aspect of problems as well as the local district, but I don't think I would be classified as a very good representative of a district if I stood by and did not raise my voice in opposition to a program like this.

I am going to do it in this committee; I am going to do it in the full committee; I am going to do it on the floor of the House, unless something is done for our large cities.

Around this Ford plant are entirely new homes. There are no school facilities at all, and the impact is 100 percent. It is not a case where there was a community there before. Right across the street from the plant, which happens to be just outside the city limits of Chicago, those school districts participate under this program.

Mr. LILLYWHITE. That is correct, sir.

Mr. BUSBEY. No one can convince me it is fair to have a school district participate in the program when the problem is more acute in this section of my district than it is where the school district participates and this section cannot participate.

Now, for instance, in Oaklawn and Evergreen Park, and places like that in Cook County, the impact has not been nearly as great as it has on the immediate community right inside the city limits of Chicago. Now, I don't know how anybody can justify that as a fair and equitable program.

Mr. LILLYWHITE. The only think I can say to you is that there was some history in the hearings of the committee that originated this bill. I remember when the proviso was put in.

In the first instance, large cities were not supposed to participate at all in the benefits of this act. The committee felt that they had greater resources; that, actually a large installation, the people went into the big city to spend their money.

It was the poor little district located next to it that did not get the benefits; so, it was in the committee between the Senate and the House in which the large cities were put in at all.

Mr. BUSBEY. That is an erroneous assumption because history shows, and particularly in Chicago, that the drift of population is to outlying communities.

As a matter of fact, they are building tremendous shopping centers in outlying areas of many large cities now. Right in this immediate district they are building a big $15 million shopping center. It is 15 miles from the Loop of Chicago.

Mr. LILLYWHITE. Well, all I was doing, sir, was calling attention to the reasoning of the committee when the bill was under consideration. Now, I am sorry I cannot say at this time what the recommendations will be, but I can find out very shortly what they will be and let you know.

Mr. BUSBEY. Well, something will have to be done if anybody wants my support for a single dime on an appropriation for this program. That is all, Mr. Chairman.

Mr. FOGARTY. Thank you very much, Mr. Lillywhite.

LIST OF WITNESSES

	Page
Adams, J. S	171
Adamy, Clarence	121
Albert, Hon. Carl	140
Anderson, J. A	15
Angell, Hon. H. D	132
Bartlett, Hon. E. L	134
Blades, Dr. Brian	271
Blatnik, Hon. J. A	140
Bott, G. J	72
Brown, R. W	423
Bunim, Dr. J. J	232
Cameron, Dr. C. J	171
Carnahan, Hon. A. S. J	143
Ching, C. S	54
Cooley, Hon. H. D	142
Crain, Dr. Darryl	332
Deane, Hon. C. B	153
Eady, L. E	54
Edwards, Leverett	1
Evins, Hon. J. L	134
Farber, Dr. Sidney	171
Forster, Dr. Frank	357
Foster, C. E	123
Freelund, Michael	357
Gale, Dr. E. H	157
Garvey, F. J	157
Gildea, Dr. E. F	218
Gordon, Dr. Dan	357
Greenwood, J. W. Jr	54
Hagen, Hon. H. C	138
Harper, H. W	23
Harris, A. L	423
Harrison, Mrs. Maxine	54
Herzog, P. M	72
Houston, J. M	72
Howard, Leland	15
Jacobsen, Dr. Leon	171
Johnson, B. C	15
Jones, Dr. T. D	271
Katz, Dr. Louis	271
Kennedy, W. J	23
Kenney, G. C	332
Lavers, R. H	118
Lewis, M. D	1
Lilywhite, B. A	423
MacElroy, G. L	124
McKenna, F. J	23
McKhann, Dr. Charles	357
McKone, D. W	423
Menninger, Dr. W. C	218
Murdock, Abe	72
Murdock, Hon. J. R	96
O'Neill, F. A., Jr	1
Pusack, G. F	23
Rudisin, Michael	23

	Page
Schlaifer, Charles	218
Scott, J. T., Jr	1
Slocumb, Dr. Charles	332
Squire, F. C	23
Stough, Mrs. A. B	98
Talle, Hon. H. O	130
Talley, Joy	357
Thompson, E. C	1
Traeger, Dr. Cornelius	357
Wortis, S. B	218
Wright, C. S	72
Zimand, G. P	104

Page
-- 218
-- 1
-- 332
-- 23
-- 98
-- 130
-- 357
- 1
- 357
- 218
- 72
- 104

INDEX

F

Page

Federal Mediation and Conciliation Service ... 54
Commissioners, data on ... 64
Conciliators, selection of ... 61
Inquiry, boards of ... 55, 60
Loyalty investigations, status of ... 67
Salaries and expenses ... 54
Federal Security Agency ... 423
Education, Office of ... 423
School construction ... 423

N

National Labor Relations Board ... 72
Personnel:
Decrease in since 1951 ... 79
Increase requested for 1953 ... 87
Salaries and expenses ... 72
Universal Camera Corp. case, effect of Supreme Court decision in ... 86
Wage Stabilization Board, relation to functions of ... 75
Workload ... 78, 82, 94
National Mediation Board ... 1
Arbitration and emergency boards ... 2, 11
Salaries and expenses ... 1
National Railroad Adjustment Board ... 15

R

Railroad Retirement Board ... 23
Account, payments to ... 23, 27
Annual indefinite appropriation, effect of change to ... 28
Decreases, 1953 ... 30
Alternatives available under railroad retirement and social security ... 39
Amendments to act, effect of ... 38
Financial operations, statement of ... 48
Salaries and expenses (from trust funds) ... 24, 31
Activity costs, comparative statement of ... 36
Appropriations, 1952, and estimates, 1953, data on ... 32, 33
Claims adjustments, status of ... 45
Claims, receipts, analysis of ... 37
Increases, reason for ... 37
Man-years and workload ... 34
Personal services ... 44, 49
Recurring work, statement of requirements for ... 52
Unit costs ... 35

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